

# SEQUENCE LISTING

<110> Ruvkun, Gary  
Kimura, Koutarou  
Patterson, Garth  
Ogg, Scott  
Paradis, Suzanne  
Tissenbaum, Heidi  
Morris, Jason  
Kowweek, Allison

<120> THERAPEUTIC AND DIAGNOSTIC TOOLS FOR  
IMPAIRED GLUCOSE TOLERANCE CONDITIONS

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<150> US 08/857,076

<151> 2000-08-03

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	1090					1095					1100							
Glu	Tyr	Cys	Val	Asp	Asn	Lys	Tyr	Asn	Ala	Asp	Asp	Trp	Glu	Leu	Arg			
1105					1110					1115					112			
Gln	Asp	Asp	Val	Val	Leu	Gly	Gln	Gln	Cys	Gly	Glu	Gly	Ser	Phe	Gly			
				1125					1130					1135				
Lys	Val	Tyr	Leu	Gly	Thr	Gly	Asn	Asn	Val	Val	Ser	Leu	Met	Gly	Asp			
			1140					1145					1150					
Arg	Phe	Gly	Pro	Cys	Ala	Ile	Lys	Ile	Asn	Val	Asp	Asp	Pro	Ala	Ser			
		1155					1160					1165						
Thr	Glu	Asn	Leu	Asn	Tyr	Leu	Met	Glu	Ala	Asn	Ile	Met	Lys	Asn	Phe			
	1170					1175					1180							
Lys	Thr	Asn	Phe	Ile	Val	Gln	Leu	Tyr	Gly	Val	Ile	Ser	Thr	Val	Gln			
1185					1190					1195					120			
Pro	Ala	Met	Val	Val	Met	Glu	Met	Met	Asp	Leu	Gly	Asn	Leu	Arg	Asp			

				1205					1210					1215		
Tyr	Leu	Arg	Ser	Lys	Arg	Glu	Asp	Glu	Val	Phe	Asn	Glu	Thr	Asp	Cys	
			1220					1225					1230			
Asn	Phe	Phe	Asp	Ile	Ile	Pro	Arg	Asp	Lys	Phe	His	Glu	Trp	Ala	Ala	
	1235						1240					1245				
Gln	Ile	Cys	Asp	Gly	Met	Ala	Tyr	Leu	Glu	Ser	Leu	Lys	Phe	Cys	His	
	1250					1255					1260					
Arg	Asp	Leu	Ala	Ala	Arg	Asn	Cys	Met	Ile	Asn	Arg	Asp	Glu	Thr	Val	
1265					1270					1275					128	
Lys	Ile	Gly	Asp	Phe	Gly	Met	Ala	Arg	Asp	Leu	Phe	Tyr	His	Asp	Tyr	
				1285					1290					1295		
Tyr	Lys	Pro	Ser	Gly	Lys	Arg	Met	Met	Pro	Val	Arg	Trp	Met	Ser	Pro	
		1300						1305					1310			
Glu	Ser	Leu	Lys	Asp	Gly	Lys	Phe	Asp	Ser	Lys	Ser	Asp	Val	Trp	Ser	
	1315						1320					1325				
Phe	Gly	Val	Val	Leu	Tyr	Glu	Met	Val	Thr	Leu	Gly	Ala	Gln	Pro	Tyr	
	1330					1335					1340					
Ile	Gly	Leu	Ser	Asn	Asp	Glu	Val	Leu	Asn	Tyr	Ile	Gly	Met	Ala	Arg	
1345					1350					1355					136	
Lys	Val	Ile	Lys	Lys	Pro	Glu	Cys	Cys	Glu	Asn	Tyr	Trp	Tyr	Lys	Val	
				1365					1370					1375		
Met	Lys	Met	Cys	Trp	Arg	Tyr	Ser	Pro	Arg	Asp	Arg	Pro	Thr	Phe	Leu	
		1380						1385					1390			
Gln	Leu	Val	His	Leu	Leu	Ala	Ala	Glu	Ala	Ser	Pro	Glu	Phe	Arg	Asp	
	1395					1400						1405				
Leu	Ser	Phe	Val	Leu	Thr	Asp	Asn	Gln	Met	Ile	Leu	Asp	Asp	Ser	Glu	
	1410					1415					1420					
Ala	Leu	Asp	Leu	Asp	Asp	Ile	Asp	Asp	Thr	Asp	Met	Asn	Asp	Gln	Val	
1425					1430					1435					144	
Val	Glu	Val	Ala	Pro	Asp	Val	Glu	Asn	Val	Glu	Val	Gln	Ser	Asp	Ser	
				1445					1450					1455		
Glu	Arg	Arg	Asn	Thr	Asp	Ser	Ile	Pro	Leu	Lys	Gln	Phe	Lys	Thr	Ile	
			1460					1465					1470			
Pro	Pro	Ile	Asn	Ala	Thr	Thr	Ser	His	Ser	Thr	Ile	Ser	Ile	Asp	Glu	
		1475					1480					1485				
Thr	Pro	Met	Lys	Ala	Lys	Gln	Arg	Glu	Gly	Ser	Leu	Asp	Glu	Glu	Tyr	
	1490					1495					1500					
Ala	Leu	Met	Asn	His	Ser	Gly	Gly	Pro	Ser	Asp	Ala	Glu	Val	Arg	Thr	
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Tyr	Ala	Gly	Asp	Gly	Asp	Tyr	Val	Glu	Arg	Asp	Val	Arg	Glu	Asn	Asp	
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Val	Pro	Thr	Arg	Arg	Asn	Thr	Gly	Ala	Ser	Thr	Ser	Ser	Tyr	Thr	Gly	
			1540					1545					1550			
Gly	Gly	Pro	Tyr	Cys	Leu	Thr	Asn	Arg	Gly	Gly	Ser</					



1665                      1670                      1675                      168  
 Thr Glu Pro Lys Asn Tyr Arg Asn Asn Gly Ser Pro Ser Arg Asn Gly  
                                  1685                      1690                      1695  
 Asn Ser Arg Asp Ile Phe Asn Gly Arg Ser Ala Phe Gly Glu Asn Glu  
                                  1700                      1705                      1710  
 His Leu Ile Glu Asp Asn Glu His His Pro Leu Val  
                                  1715                      1720

<210> 13  
 <211> 139  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 13  
 Thr Ser Gly Ser Gly Met Gly Pro Thr Thr Leu His Lys Leu Thr Ile  
 1                      5                      10                      15  
 Gly Gly Gln Ile Arg Leu Thr Gly Arg Val Gly Ser Gly Arg Phe Gly  
                                  20                      25                      30  
 Asn Val Ser Arg Gly Asp Tyr Arg Gly Glu Ala Val Ala Val Lys Val  
                                  35                      40                      45  
 Phe Asn Ala Leu Asp Glu Pro Ala Phe His Lys Glu Thr Glu Ile Phe  
                                  50                      55                      60  
 Glu Thr Arg Met Leu Arg His Pro Asn Val Leu Arg Tyr Ile Gly Ser  
 65                      70                      75                      80  
 Asp Arg Val Asp Thr Gly Phe Val Thr Glu Leu Trp Leu Val Thr Glu  
                                  85                      90                      95  
 Tyr His Pro Ser Gly Ser Leu His Asp Phe Leu Leu Glu Asn Thr Val  
                                  100                      105                      110  
 Asn Ile Glu Thr Tyr Tyr Asn Leu Met Arg Ser Thr Ala Ser Gly Leu  
                                  115                      120                      125  
 Ala Phe Leu His Asn Gln Ile Gly Gly Ser Lys  
                                  130                      135

<210> 14  
 <211> 62  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 14  
 Glu Asp Ala Ala Ser Asp Ile Ile Ala Asn Glu Asn Tyr Lys Cys Gly  
 1                      5                      10                      15  
 Thr Val Arg Tyr Leu Ala Pro Glu Ile Leu Asn Ser Thr Met Gln Phe  
                                  20                      25                      30  
 Thr Val Phe Glu Ser Tyr Gln Cys Ala Asp Val Tyr Ser Phe Ser Leu  
                                  35                      40                      45  
 Val Met Trp Glu Thr Leu Cys Arg Cys Glu Asp Gly Asp Val  
                                  50                      55                      60

<210> 15  
 <211> 31  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 15  
 Lys Pro Ala Met Ala His Arg Asp Ile Lys Ser Lys Asn Ile Met Val

TOEHO"ESHHGO

1 5 10 15  
 Lys Asn Asp Leu Thr Cys Ala Ile Gly Asp Leu Gly Leu Ser Leu  
 20 25 30

<210> 16  
 <211> 72  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 16  
 Ile Pro Tyr Ile Glu Trp Thr Asp Arg Asp Pro Gln Asp Ala Gln Met  
 1 5 10 15  
 Phe Asp Val Val Cys Thr Arg Arg Leu Arg Pro Thr Glu Asn Pro Leu  
 20 25 30  
 Trp Lys Asp His Pro Glu Met Lys His Ile Met Glu Ile Ile Lys Thr  
 35 40 45  
 Cys Trp Asn Gly Asn Pro Ser Ala Arg Phe Thr Ser Tyr Ile Cys Arg  
 50 55 60  
 Lys Arg Met Asp Glu Arg Gln Gln  
 65 70

<210> 17  
 <211> 150  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 17  
 Tyr Phe Glu Ser Val Asp Arg Phe Leu Tyr Ser Cys Val Gly Tyr Ser  
 1 5 10 15  
 Val Ala Thr Tyr Ile Met Gly Ile Lys Asp Arg His Ser Asp Asn Leu  
 20 25 30  
 Met Leu Thr Glu Asp Gly Lys Tyr Val His Ile Asp Phe Gly His Ile  
 35 40 45  
 Leu Gly His Gly Lys Thr Lys Leu Gly Ile Gln Arg Asp Arg Gln Pro  
 50 55 60  
 Phe Ile Leu Thr Glu His Phe Met Thr Val Ile Arg Ser Gly Lys Ser  
 65 70 75 80  
 Val Asp Gly Asn Ser His Glu Leu Gln Lys Phe Lys Thr Leu Cys Val  
 85 90 95  
 Glu Ala Tyr Glu Val Met Trp Asn Asn Arg Asp Leu Phe Val Ser Leu  
 100 105 110  
 Phe Thr Leu Met Leu Gly Met Glu Leu Pro Glu Leu Ser Thr Lys Ala  
 115 120 125  
 Asp Leu Asp His Leu Lys Lys Thr Leu Phe Cys Asn Gly Glu Ser Lys  
 130 135 140  
 Glu Glu Ala Arg Lys Phe  
 145 150

<210> 18  
 <211> 113  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 18  
 Ser Pro Leu Asp Pro Val Tyr Lys Leu Gly Glu Met Ile Ile Asp Lys

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      1           5           10           15
Ala Ile Val Leu Gly Ser Ala Lys Arg Pro Leu Met Leu His Trp Lys
      20           25           30
Asn Lys Asn Pro Lys Ser Asp Leu His Leu Pro Phe Cys Ala Met Ile
      35           40           45
Phe Lys Asn Gly Asp Asp Leu Arg Gln Asp Met Leu Val Leu Gln Val
      50           55           60
Leu Glu Val Met Asp Asn Ile Trp Lys Ala Ala Asn Ile Asp Cys Cys
      65           70           75           80
Leu Asn Pro Tyr Ala Val Leu Pro Met Gly Glu Met Ile Gly Ile Ile
      85           90           95
Glu Val Val Pro Asn Cys Lys Thr Ile Phe Glu Ile Gln Val Gly Thr
      100           105           110
Gly

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<210> 19  
 <211> 106  
 <212> PRT  
 <213> Caenorhabditis elegans

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<400> 19
Leu Ala Phe Val Trp Thr Asp Arg Glu Asn Phe Ser Glu Leu Tyr Val
      1           5           10           15
Met Leu Glu Lys Trp Lys Pro Pro Ser Val Ala Ala Ala Leu Thr Leu
      20           25           30
Leu Gly Lys Arg Cys Thr Asp Arg Val Ile Arg Lys Phe Ala Val Glu
      35           40           45
Lys Leu Asn Glu Gln Leu Ser Pro Val Thr Phe His Leu Phe Ile Leu
      50           55           60
Pro Leu Ile Gln Ala Leu Lys Tyr Glu Pro Arg Ala Gln Ser Glu Val
      65           70           75           80
Gly Met Met Leu Leu Thr Arg Ala Leu Cys Asp Tyr Arg Ile Gly His
      85           90           95
Arg Leu Phe Trp Leu Leu Arg Ala Glu Ile
      100           105

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<210> 20  
 <211> 139  
 <212> PRT  
 <213> Caenorhabditis elegans

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<400> 20
Glu Tyr Trp Ile Val Thr Glu Phe His Glu Arg Leu Ser Leu Tyr Glu
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Leu Leu Lys Asn Asn Val Ile Ser Ile Thr Ser Ala Asn Arg Ile Ile
      20           25           30
Met Ser Met Ile Asp Gly Leu Gln Phe Leu His Asp Asp Arg Pro Tyr
      35           40           45
Phe Phe Gly His Pro Lys Lys Pro Ile Ile His Arg Asp Ile Lys Ser
      50           55           60
Lys Asn Ile Leu Val Lys Ser Asp Met Thr Thr Cys Ile Ala Asp Phe
      65           70           75           80
Gly Leu Ala Arg Ile Tyr Ser Tyr Asp Ile Glu Gln Ser Asp Leu Leu
      85           90           95
Gly Gln Val Gly Thr Lys Arg Tyr Met Ser Pro Glu Met Leu Glu Gly

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100 105 110  
Ala Thr Glu Phe Thr Pro Thr Ala Phe Lys Ala Met Asp Val Tyr Ser  
115 120 125  
Met Gly Leu Val Met Trp Glu Val Ile Ser Arg  
130 135

<210> 21  
<211> 61  
<212> PRT  
<213> Caenorhabditis elegans

<400> 21  
Ile Gly Phe Asp Pro Thr Ile Gly Arg Met Arg Asn Tyr Val Val Ser  
1 5 10 15  
Lys Lys Glu Arg Pro Gln Trp Arg Asp Glu Ile Ile Lys His Glu Tyr  
20 25 30  
Met Ser Leu Leu Lys Lys Val Thr Glu Glu Met Trp Asp Pro Glu Ala  
35 40 45  
Cys Ala Arg Ile Thr Ala Gly Cys Ala Phe Ala Arg Val  
50 55 60

<210> 22  
<211> 20  
<212> PRT  
<213> Caenorhabditis elegans

<400> 22  
Pro Ile Thr Asp Phe Gln Leu Ile Ser Lys Gly Arg Phe Gly Lys Val  
1 5 10 15  
Phe Lys Ala Gln  
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<210> 23  
<211> 163  
<212> PRT  
<213> Caenorhabditis elegans

<400> 23  
Thr Asp Ser Glu Thr Arg Ser Arg Phe Ser Leu Gly Trp Tyr Asn Asn  
1 5 10 15  
Pro Asn Arg Ser Pro Gln Thr Ala Glu Val Arg Gly Leu Ile Gly Lys  
20 25 30  
Gly Val Arg Phe Tyr Leu Leu Ala Gly Glu Val Tyr Val Glu Asn Leu  
35 40 45  
Cys Asn Ile Pro Val Phe Val Gln Ser Ile Gly Ala Asn Met Lys Asn  
50 55 60  
Gly Phe Gln Leu Asn Thr Val Ser Lys Leu Pro Pro Thr Gly Thr Met  
65 70 75 80  
Lys Val Phe Asp Met Arg Leu Phe Ser Lys Gln Leu Arg Thr Ala Ala  
85 90 95  
Glu Lys Thr Tyr Gln Asp Val Tyr Cys Leu Ser Arg Met Cys Thr Val  
100 105 110  
Arg Val Ser Phe Cys Lys Gly Trp Gly Glu His Tyr Arg Arg Ser Thr  
115 120 125  
Val Leu Arg Ser Pro Val Trp Phe Gln Ala His Leu Asn Asn Pro Met

130                      135                      140  
 His Trp Val Asp Ser Val Leu Thr Cys Met Gly Ala Pro Pro Arg Ile  
 145                      150                      155                      160  
 Cys Ser Ser

<210> 24  
 <211> 44  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 24  
 Arg Ala Phe Arg Phe Pro Val Ile Arg Tyr Glu Ser Gln Val Lys Ser  
 1                      5                      10                      15  
 Ile Leu Thr Cys Arg His Ala Phe Asn Ser His Ser Arg Asn Val Cys  
 20                      25                      30  
 Leu Asn Pro Tyr His Tyr Arg Trp Val Glu Leu Pro  
 35                      40

<210> 25  
 <211> 38  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 25  
 Val Glu Tyr Glu Glu Ser Pro Ser Trp Leu Lys Leu Ile Tyr Tyr Glu  
 1                      5                      10                      15  
 Glu Gly Thr Met Ile Gly Glu Lys Ala Asp Val Glu Gly His His Cys  
 20                      25                      30  
 Leu Ile Asp Gly Phe Thr  
 35

<210> 26  
 <211> 60  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 26  
 Asn Leu Ala Glu Thr Gly His Ser Lys Ile Met Arg Ala Ala His Lys  
 1                      5                      10                      15  
 Val Ser Asn Pro Glu Ile Gly Tyr Cys Cys His Pro Thr Glu Tyr Asp  
 20                      25                      30  
 Tyr Ile Lys Leu Ile Tyr Val Asn Arg Asp Gly Arg Val Ser Ile Ala  
 35                      40                      45  
 Asn Val Asn Gly Met Ile Ala Lys Lys Cys Gly Cys  
 50                      55                      60

<210> 27  
 <211> 20  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 27  
 Asp Trp Ile Val Ala Pro Pro Arg Tyr Asn Ala Tyr Met Cys Arg Gly

1 5 10 15  
 Asp Cys His Tyr  
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<210> 28  
 <211> 43  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 28  
 Val Cys Asn Ala Glu Ala Gln Ser Lys Gly Cys Cys Leu Tyr Asp Leu  
 1 5 10 15  
 Glu Ile Glu Phe Glu Lys Ile Gly Trp Asp Trp Ile Val Ala Pro Pro  
 20 25 30  
 Arg Tyr Asn Ala Tyr Met Cys Arg Gly Asp Cys  
 35 40

<210> 29  
 <211> 70  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 29  
 Asp Cys His Tyr Asn Ala His His Phe Asn Leu Ala Glu Thr Gly His  
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 Ser Lys Ile Met Arg Ala Ala His Lys Val Ser Asn Pro Glu Ile Gly  
 20 25 30  
 Tyr Cys Cys His Pro Thr Glu Tyr Asp Tyr Ile Lys Leu Ile Tyr Val  
 35 40 45  
 Asn Arg Asp Gly Arg Val Ser Ile Ala Asn Val Asn Gly Met Ile Ala  
 50 55 60  
 Lys Lys Cys Gly Cys Ser  
 65 70

<210> 30  
 <211> 35  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 30  
 Cys Cys Leu Tyr Asp Leu Glu Ile Glu Phe Glu Lys Ile Gly Trp Asp  
 1 5 10 15  
 Trp Ile Val Ala Pro Pro Arg Tyr Asn Ala Tyr Met Cys Arg Gly Asp  
 20 25 30  
 Cys His Tyr  
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<210> 31  
 <211> 23  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Degenerate probe

<221> misc\_feature  
<222> (1)...(23)  
<223> n = A,T,C or G

<400> 31  
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23

<210> 32  
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<212> DNA  
<213> Artificial Sequence

<220>  
<223> Degenerate probe

<221> misc\_feature  
<222> (1)...(18)  
<223> n = A,T,C or G

<400> 32  
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18

<210> 33  
<211> 127  
<212> PRT  
<213> Caenorhabditis elegans

<400> 33  
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Glu Ser Leu Lys Phe Cys His Arg Asp Leu Ala Ala Arg Asn Cys Met  
20 25 30  
Ile Asn Arg Asp Glu Thr Val Lys Ile Gly Asp Phe Gly Met Ala Arg  
35 40 45  
Asp Leu Phe Tyr His Asp Tyr Lys Pro Ser Gly Lys Arg Met Met  
50 55 60  
Pro Val Arg Trp Met Ser Pro Glu Ser Leu Lys Asp Gly Lys Phe Asp  
65 70 75 80  
Ser Lys Ser Asp Val Trp Ser Phe Gly Val Val Leu Tyr Glu Met Val  
85 90 95  
Thr Leu Gly Ala Gln Pro Tyr Ile Gly Leu Ser Asn Asp Glu Val Leu  
100 105 110  
Asn Tyr Ile Gly Met Ala Arg Lys Val Ile Lys Lys Pro Glu Cys  
115 120 125

<210> 34  
<211> 131  
<212> PRT  
<213> Caenorhabditis elegans

<400> 34  
Asn Thr Thr Cys Gln Lys Ser Cys Ala Tyr Asp Arg Leu Leu Pro Thr  
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Lys Glu Ile Gly Pro Gly Cys Asp Ala Asn Gly Asp Arg Cys His Asp  
20 25 30  
Gln Cys Val Gly Gly Cys Glu Arg Val Asn Asp Ala Thr Ala Cys His  
35 40 45

Ala Cys Lys Asn Val Tyr His Lys Gly Lys Cys Ile Glu Lys Cys Asp  
 50 55 60  
 Ala His Leu Tyr Leu Leu Leu Gln Arg Arg Cys Val Thr Arg Glu Gln  
 65 70 75 80  
 Cys Leu Gln Leu Asn Pro Val Leu Ser Asn Lys Thr Val Pro Ile Lys  
 85 90 95  
 Ala Thr Ala Gly Leu Cys Ser Asp Lys Cys Pro Asp Gly Tyr Gln Ile  
 100 105 110  
 Asn Pro Asp Asp His Arg Glu Cys Arg Lys Cys Val Gly Lys Cys Glu  
 115 120 125  
 Ile Val Cys  
 130

<210> 35  
 <211> 103  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 35  
 Phe Asp Gln Lys Ala Cys Glu Ser Leu Val Lys Lys Leu Lys Asp Lys  
 1 5 10 15  
 Lys Asn Asp Leu Gln Asn Leu Ile Asp Val Val Leu Ser Lys Gly Thr  
 20 25 30  
 Lys Tyr Thr Gly Cys Ile Thr Ile Pro Arg Thr Leu Asp Gly Arg Leu  
 35 40 45  
 Gln Val His Gly Arg Lys Gly Phe Pro His Val Val Tyr Gly Lys Leu  
 50 55 60  
 Trp Arg Phe Asn Glu Met Thr Lys Asn Glu Thr Arg His Val Asp His  
 65 70 75 80  
 Cys Lys His Ala Phe Glu Met Lys Ser Asp Met Val Cys Val Asn Pro  
 85 90 95  
 Tyr His Tyr Glu Ile Val Ile  
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<210> 36  
 <211> 79  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 36  
 Asn Arg Tyr Ser Leu Gly Leu Glu Pro Asn Pro Ile Arg Glu Pro Val  
 1 5 10 15  
 Ala Phe Lys Val Arg Lys Ala Ile Val Asp Gly Ile Arg Phe Ser Tyr  
 20 25 30  
 Lys Lys Asp Gly Ser Val Trp Leu Gln Asn Arg Met Lys Tyr Pro Val  
 35 40 45  
 Phe Val Thr Ser Gly Tyr Leu Asp Glu Gln Ser Gly Gly Leu Lys Lys  
 50 55 60  
 Asp Lys Val His Lys Val Tyr Gly Cys Ala Ser Ile Lys Thr Phe  
 65 70 75

<210> 37  
 <211> 106  
 <212> PRT  
 <213> Caenorhabditis elegans



<400> 37

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Lys Lys Thr Thr Thr Arg Arg Asn Ala Trp Gly Asn Met Ser Tyr Ala
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Glu Leu Ile Thr Thr Ala Ile Met Ala Ser Pro Glu Lys Arg Leu Thr
          20           25           30
Leu Ala Gln Val Tyr Glu Trp Met Val Gln Asn Val Pro Tyr Phe Arg
          35           40           45
Asp Lys Gly Asp Ser Asn Ser Ser Ala Gly Trp Lys Asn Ser Ile Arg
          50           55           60
His Asn Leu Ser Leu His Ser Arg Phe Met Arg Ile Gln Asn Glu Gly
          65           70           75           80
Ala Gly Lys Ser Ser Trp Trp Val Ile Asn Pro Asp Ala Lys Pro Gly
          85           90           95
Met Asn Pro Arg Arg Thr Arg Glu Arg Ser
          100           105

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<210> 38

<211> 60

<212> PRT

<213> Caenorhabditis elegans

<400> 38

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Glu Ile Lys Leu Ser Asp Phe Lys His Gln Leu Phe Glu Leu Ile Ala
 1           5           10           15
Pro Met Lys Trp Gly Thr Tyr Ser Val Lys Pro Gln Asp Tyr Val Phe
          20           25           30
Arg Gln Leu Asn Asn Phe Gly Glu Ile Glu Val Ile Phe Asn Asp Asp
          35           40           45
Gln Pro Leu Ser Lys Leu Glu Leu His Gly Thr Phe
          50           55           60

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<210> 39

<211> 2784

<212> DNA

<213> Caenorhabditis elegans

<400> 39

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ttggatccag acagtcagga tgatgacccg gaagatgggtg tcaactaccc ggatccagat      180
ttatttgaca caaaaaaacac aaatatgacc gagtacgatt tggatgtgtt gaagcttgga      240
aaaccagcag tagatgaagc acggaaaaag atcgaagttc cgcacgctag tgcgccgcca      300
aacaaaattg tagaatattt gatgtattat agaacgttaa aagaaagtga actcatacaa      360
ctgaatgcgt atcggacaaa acgaaatcga ttatcgttga acttgggtcaa aaacaatatt      420
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attacaattc caaggacact tgatggccgg ttacaggtcc acggaagaaa aggtttccct      600
cacgtagtct atggcaaact gtggagggttt aatgaaatga caaaaaacga aacgcgtcat      660
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cactacgaaa ttgtcatttg aactatgatt gttgggcaga gggatcatga caatcgagat      780
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agtagattta taccaccagc ttccattcgt ccgcctccga tgaacatgca cacaaggcct      900
cagcctatgc ctcaacaatt gccttcagtt ggcgcaacgt ttgcccattc tctcccat      960
caggcgccac ataaccacag ggtttcacat ccgtactcca ttgctccaca gacccattac     1020
ccgttgaaca tgaacccaat tccgcaaatt ccgcaaattg cacaaatgcc accacctctc     1080
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caaaatcacc	attataatga	tattagccat	ccaaatcact	attcctacga	ctgtgggtccg	1200
aacttgtagc	ggttttccaac	tccttatccg	gatttttcacc	atccttttcaa	tcagcaacca	1260
caccagccgc	cacaactatc	acaaaacccat	acgtcccaac	aaggcagtc	tcaaccagg	1320
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acatcagaaa	gtgtaacttt	ctcaggagag	gggccagaag	ttagtgattt	gaacgaaaaa	1680
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gagccaaatc	caattagaga	accagtggcg	tttaaagttc	gtaaagcaat	agtggatgga	1860
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gtattttgtca	cttctgggta	tctcgacgag	caatcaggag	gcctaaagaa	ggataaagt	1980
cacaaagttt	acggatgtgc	gtctatcaaa	acgtttggct	tcaacgtttc	caaacaaatc	2040
atcagagacg	cgcttctttc	caagcaaattg	gcaacaatgt	acttgcaagg	aaaattgact	2100
ccgatgaatt	atatctacga	gaagaagatg	caggaagagc	tgcaaggga	agcaacacgc	2160
accactgatt	cattggccaa	gtactgttgt	gtccgtgtct	cgttctgcaa	aggatttgg	2220
gaagcatacc	cagaacgccc	gtcaattcat	gattgtccag	tttggattga	gttgaaaaatc	2280
aacattgcct	acgatttcat	ggattcaatc	tgccagtaca	taaccaactg	cttcgagccg	2340
ctaggaatgg	aagattttgc	aaaattggga	atcaacgtca	gtgatgacta	aatgataact	2400
tttttctactc	accctactag	atactgattt	agtcttattc	caaactatcc	aacgatataca	2460
aactttttcc	tttgaacttt	gcatactatg	ttatcacaag	ttccaagcag	tttcaatata	2520
aacataggtat	atgttaacaa	cttttgataa	gaatcaagtt	accaactgtt	cattgtgagc	2580
tttgagctgt	atagaaggac	aatgtatccc	atacctcaat	ctttaatagt	catcagtcac	2640
tggtcccgcga	ccaatttttt	cgattcgcat	atgtcatata	ttgcaccgtg	gcccttttta	2700
ttgtaacttt	taatatatatt	tcttcccaac	ttgtgaatat	gattgatgaa	ccaccatttt	2760
gagtaataaaa	tgtatttttt	gtgg				2784

<210> 40  
 <211> 796  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 40

Met	Lys	Leu	Ile	Ala	Thr	Ser	Leu	Leu	Val	Pro	Asp	Glu	His	Thr	Pro
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Met	Met	Ser	Pro	Val	Asn	Thr	Thr	Thr	Lys	Ile	Leu	Gln	Arg	Ser	Gly
			20					25					30		
Ile	Lys	Met	Glu	Ile	Pro	Pro	Tyr	Leu	Asp	Pro	Asp	Ser	Gln	Asp	Asp
		35				40					45				
Asp	Pro	Glu	Asp	Gly	Val	Asn	Tyr	Pro	Asp	Pro	Asp	Leu	Phe	Asp	Thr
	50					55				60					
Lys	Asn	Thr	Asn	Met	Thr	Glu	Tyr	Asp	Leu	Asp	Val	Leu	Lys	Leu	Gly
65				70					75					80	
Lys	Pro	Ala	Val	Asp	Glu	Ala	Arg	Lys	Lys	Ile	Glu	Val	Pro	Asp	Ala
			85					90						95	
Ser	Ala	Pro	Pro	Asn	Lys	Ile	Val	Glu	Tyr	Leu	Met	Tyr	Tyr	Arg	Thr
		100					105						110		
Leu	Lys	Glu	Ser	Glu	Leu	Ile	Gln	Leu	Asn	Ala	Tyr	Arg	Thr	Lys	Arg
		115				120						125			
Asn	Arg	Leu	Ser	Leu	Asn	Leu	Val	Lys	Asn	Asn	Ile	Asp	Arg	Glu	Phe
	130				135						140				
Asp	Gln	Lys	Ala	Cys	Glu	Ser	Leu	Val	Lys	Lys	Leu	Lys	Asp	Lys	Lys
145				150					155					160	
Asn	Asp	Leu	Gln	Asn	Leu	Ile	Asp	Val	Val	Leu	Ser	Lys	Gly	Thr	Lys
			165					170						175	
Tyr	Thr	Gly	Cys	Ile	Thr	Ile	Pro	Arg	Thr	Leu	Asp	Gly	Arg	Leu	Gln

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				645					650					655			
Lys	Asp	Lys	Val	His	Lys	Val	Tyr	Gly	Cys	Ala	Ser	Ile	Lys	Thr	Phe		
			660					665					670				
Gly	Phe	Asn	Val	Ser	Lys	Gln	Ile	Ile	Arg	Asp	Ala	Leu	Leu	Ser	Lys		
		675					680					685					
Gln	Met	Ala	Thr	Met	Tyr	Leu	Gln	Gly	Lys	Leu	Thr	Pro	Met	Asn	Tyr		
	690					695					700						
Ile	Tyr	Glu	Lys	Lys	Thr	Gln	Glu	Glu	Leu	Arg	Arg	Glu	Ala	Thr	Arg		
705					710					715					720		
Thr	Thr	Asp	Ser	Leu	Ala	Lys	Tyr	Cys	Cys	Val	Arg	Val	Ser	Phe	Cys		
				725				730						735			
Lys	Gly	Phe	Gly	Glu	Ala	Tyr	Pro	Glu	Arg	Pro	Ser	Ile	His	Asp	Cys		
		740						745				750					
Pro	Val	Trp	Ile	Glu	Leu	Lys	Ile	Asn	Ile	Ala	Tyr	Asp	Phe	Met	Asp		
	755					760						765					
Ser	Ile	Cys	Gln	Tyr	Ile	Thr	Asn	Cys	Phe	Glu	Pro	Leu	Gly	Met	Glu		
	770					775					780						
Asp	Phe	Ala	Lys	Leu	Gly	Ile	Asn	Val	Ser	Asp	Asp						
785					790					795							

<210> 41  
 <211> 858  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 41

Met	Gly	Asp	His	His	Asn	Leu	Thr	Gly	Leu	Pro	Gly	Thr	Ser	Ile	Pro		
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Pro	Gln	Phe	Asn	Tyr	Ser	Gln	Pro	Gly	Thr	Ser	Thr	Gly	Gly	Pro	Leu		
		20						25				30					
Tyr	Gly	Gly	Lys	Pro	Ser	His	Gly	Leu	Glu	Asp	Ile	Pro	Asp	Val	Glu		
	35					40					45						
Glu	Tyr	Glu	Arg	Asn	Leu	Leu	Gly	Ala	Gly	Ala	Gly	Phe	Asn	Leu	Leu		
	50				55					60							
Asn	Val	Gly	Asn	Met	Ala	Asn	Val	Pro	Asp	Glu	His	Thr	Pro	Met	Met		
65				70					75						80		
Ser	Pro	Val	Asn	Thr	Thr	Thr	Lys	Ile	Leu	Gln	Arg	Ser	Gly	Ile	Lys		
			85					90					95				
Met	Glu	Ile	Pro	Pro	Tyr	Leu	Asp	Pro	Asp	Ser	Gln	Asp	Asp	Asp	Pro		
	100						105					110					
Glu	Asp	Gly	Val	Asn	Tyr	Pro	Asp	Pro	Asp	Leu	Phe	Asp	Thr	Lys	Asn		
	115					120						125					
Thr	Asn	Met	Thr	Glu	Tyr	Asp	Leu	Asp	Val	Leu	Lys	Leu	Gly	Lys	Pro		
	130				135				140								
Ala	Val	Asp	Glu	Ala	Arg	Lys	Lys	Ile	Glu	Val	Pro	Asp	Ala	Ser	Ala		
145					150				155						160		
Pro	Pro	Asn	Lys	Ile	Val	Glu	Tyr	Leu	Met	Tyr	Tyr	Arg	Thr	Leu	Lys		
			165					170						175			
Glu	Ser	Glu	Leu	Ile	Gln	Leu	Asn	Ala	Tyr	Arg	Thr	Lys	Arg	Asn	Arg		
	180					185						190					
Leu	Ser	Leu	Asn	Leu	Val	Lys	Asn	Asn	Ile	Asp	Arg	Glu	Phe	Asp	Gln		
	195					200					205						
Lys	Ala	Cys	Glu	Ser	Leu	Val	Lys	Lys	Leu	Lys	Asp	Lys	Lys	Asn	Asp		
	210				215					220							
Leu	Gln	Asn	Leu	Ile	Asp	Val	Val	Leu	Ser	Lys	Gly	Thr	Lys	Tyr	Thr		
225					230					235					240		
Gly	Cys	Ile	Thr	Ile	Pro	Arg	Thr	Leu	Asp	Gly	Arg	Leu	Gln	Val	His		

Gly	Arg	Lys	Gly	245	Pro	His	Val	Val	250	Tyr	Gly	Lys	Leu	255	Trp	Arg	Phe
			260	Phe					265					270			
Asn	Glu	Met	Thr	Lys	Asn	Glu	Thr	Arg	His	Val	Asp	His	Cys	Lys	His		
		275						280					285				
Ala	Phe	Glu	Met	Lys	Ser	Asp	Met	Val	Cys	Val	Asn	Pro	Tyr	His	Tyr		
		290				295					300						
Glu	Ile	Val	Ile	Gly	Thr	Met	Ile	Val	Gly	Gln	Arg	Asp	His	Asp	Asn		
305					310					315					320		
Arg	Asp	Met	Pro	Pro	Pro	His	Gln	Arg	Tyr	His	Thr	Pro	Gly	Arg	Gln		
				325					330					335			
Asp	Pro	Val	Asp	Asp	Met	Ser	Arg	Phe	Ile	Pro	Pro	Ala	Ser	Ile	Arg		
			340					345					350				
Pro	Pro	Pro	Met	Asn	Met	His	Thr	Arg	Pro	Gln	Pro	Met	Pro	Gln	Gln		
		355					360					365					
Leu	Pro	Ser	Val	Gly	Ala	Thr	Phe	Ala	His	Pro	Leu	Pro	His	Gln	Ala		
370						375					380						
Pro	His	Asn	Pro	Gly	Val	Ser	His	Pro	Tyr	Ser	Ile	Ala	Pro	Gln	Thr		
385					390					395					400		
His	Tyr	Pro	Leu	Asn	Met	Asn	Pro	Ile	Pro	Gln	Met	Pro	Gln	Met	Pro		
				405					410					415			
Gln	Met	Pro	Pro	Pro	Leu	His	Gln	Gly	Tyr	Gly	Met	Asn	Gly	Pro	Ser		
			420					425					430				
Cys	Ser	Ser	Glu	Asn	Asn	Asn	Pro	Phe	His	Gln	Asn	His	His	Tyr	Asn		
		435					440					445					
Asp	Ile	Ser	His	Pro	Asn	His	Tyr	Ser	Tyr	Asp	Cys	Gly	Pro	Asn	Leu		
		450				455					460						
Tyr	Gly	Phe	Pro	Thr	Pro	Tyr	Pro	Asp	Phe	His	His	Pro	Phe	Asn	Gln		
465					470					475					480		
Gln	Pro	His	Gln	Pro	Pro	Gln	Leu	Ser	Gln	Asn	His	Thr	Ser	Gln	Gln		
				485					490					495			
Gly	Ser	His	Gln	Pro	Gly	His	Gln	Gly	Gln	Val	Pro	Asn	Asp	Pro	Pro		
			500					505					510				
Ile	Ser	Arg	Pro	Val	Leu	Gln	Pro	Ser	Thr	Val	Thr	Leu	Asp	Val	Phe		
		515					520					525					
Arg	Arg	Tyr	Cys	Arg	Gln	Thr	Phe	Gly	Asn	Arg	Phe	Phe	Glu	Gly	Glu		
		530				535					540						
Ser	Glu	Gln	Ser	Gly	Ala	Ile	Ile	Arg	Ser	Ser	Asn	Lys	Phe	Ile	Glu		
545					550					555					560		
Glu	Phe	Asp	Ser	Pro	Ile	Cys	Gly	Val	Thr	Val	Val	Arg	Pro	Arg	Met		
				565					570					575			
Thr	Asp	Gly	Glu	Val	Leu	Glu	Asn	Ile	Met	Pro	Glu	Asp	Ala	Pro	Tyr		
			580					585					590				
His	Asp	Ile	Cys	Lys	Phe	Ile	Leu	Arg	Leu	Thr	Ser	Glu	Ser	Val	Thr		
		595					600					605					
Phe	Ser	Gly	Glu	Gly	Pro	Glu	Val	Ser	Asp	Leu	Asn	Glu	Lys	Trp	Gly		
		610				615					620						
Thr	Ile	Val	Tyr	Tyr	Glu	Lys	Asn	Leu	Gln	Ile	Gly	Glu	Lys	Lys	Cys		
625					630					635					640		
Ser	Arg	Gly	Asn	Phe	His	Val	Asp	Gly	Gly	Phe	Ile	Cys	Ser	Glu	Asn		
				645					650					655			
Arg	Tyr	Ser	Leu	Gly	Leu	Glu	Pro	Asn	Pro	Ile	Arg	Glu	Pro	Val	Ala		
			660					665					670				
Phe	Lys	Val	Arg	Lys	Ala	Ile	Val	Asp	Gly	Ile	Arg	Phe	Ser	Tyr	Lys		
		675					680					685					
Lys	Asp	Gly	Ser	Val	Trp	Leu	Gln	Asn	Arg	Met	Lys	Tyr	Pro	Val	Phe		
	690					695					700						
Val	Thr	Ser	Gly	Tyr	Leu	Asp	Glu	Gln	Ser	Gly	Gly	Leu	Lys	Lys	Asp		

705					710					715					720
Lys	Val	His	Lys	Val	Tyr	Gly	Cys	Ala	Ser	Ile	Lys	Thr	Phe	Gly	Phe
				725					730					735	
Asn	Val	Ser	Lys	Gln	Ile	Ile	Arg	Asp	Ala	Leu	Leu	Ser	Lys	Gln	Met
			740					745					750		
Ala	Thr	Met	Tyr	Leu	Gln	Gly	Lys	Leu	Thr	Pro	Met	Asn	Tyr	Ile	Tyr
		755					760					765			
Glu	Lys	Lys	Thr	Gln	Glu	Glu	Leu	Arg	Arg	Glu	Ala	Thr	Arg	Thr	Thr
	770					775					780				
Asp	Ser	Leu	Ala	Lys	Tyr	Cys	Cys	Val	Arg	Val	Ser	Phe	Cys	Lys	Gly
785					790					795					800
Phe	Gly	Glu	Ala	Tyr	Pro	Glu	Arg	Pro	Ser	Ile	His	Asp	Cys	Pro	Val
				805					810					815	
Trp	Ile	Glu	Leu	Lys	Ile	Asn	Ile	Ala	Tyr	Asp	Phe	Met	Asp	Ser	Ile
			820					825					830		
Cys	Gln	Tyr	Ile	Thr	Asn	Cys	Phe	Glu	Pro	Leu	Gly	Met	Glu	Asp	Phe
		835					840					845			
Ala	Lys	Leu	Gly	Ile	Asn	Val	Ser	Asp	Asp						
	850					855									

<210> 42  
 <211> 892  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 42

Met	Gly	Asp	His	His	Asn	Leu	Thr	Gly	Leu	Pro	Gly	Thr	Ser	Ile	Pro
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Pro	Gln	Phe	Asn	Tyr	Ser	Gln	Pro	Gly	Thr	Ser	Thr	Gly	Gly	Pro	Leu
			20					25					30		
Tyr	Gly	Gly	Lys	Pro	Ser	His	Gly	Leu	Glu	Asp	Ile	Pro	Asp	Val	Glu
		35					40					45			
Glu	Tyr	Glu	Arg	Asn	Leu	Leu	Gly	Ala	Gly	Ala	Gly	Phe	Asn	Leu	Leu
	50					55					60				
Asn	Val	Gly	Asn	Met	Ala	Asn	Glu	Phe	Lys	Pro	Ile	Ile	Thr	Leu	Asp
65				70					75						80
Thr	Lys	Pro	Pro	Arg	Asp	Ala	Asn	Lys	Ser	Leu	Ala	Phe	Asn	Gly	Gly
				85				90					95		
Leu	Lys	Leu	Ile	Thr	Pro	Lys	Thr	Glu	Val	Pro	Asp	Glu	His	Thr	Pro
			100				105					110			
Met	Met	Ser	Pro	Val	Asn	Thr	Thr	Lys	Ile	Leu	Gln	Arg	Ser	Gly	
		115					120				125				
Ile	Lys	Met	Glu	Ile	Pro	Pro	Tyr	Leu	Asp	Pro	Asp	Ser	Gln	Asp	Asp
	130					135				140					
Asp	Pro	Glu	Asp	Gly	Val	Asn	Tyr	Pro	Asp	Pro	Asp	Leu	Phe	Asp	Thr
145					150				155						160
Lys	Asn	Thr	Asn	Met	Thr	Glu	Tyr	Asp	Leu	Asp	Val	Leu	Lys	Leu	Gly
			165					170					175		
Lys	Pro	Ala	Val	Asp	Glu	Ala	Arg	Lys	Lys	Ile	Glu	Val	Pro	Asp	Ala
			180				185						190		
Ser	Ala	Pro	Pro	Asn	Lys	Ile	Val	Glu	Tyr	Leu	Met	Tyr	Tyr	Arg	Thr
		195				200					205				
Leu	Lys	Glu	Ser	Glu	Leu	Ile	Gln	Leu	Asn	Ala	Tyr	Arg	Thr	Lys	Arg
	210					215				220					
Asn	Arg	Leu	Ser	Leu	Asn	Leu	Val	Lys	Asn	Asn	Ile	Asp	Arg	Glu	Phe
225					230				235						240
Asp	Gln	Lys	Ala	Cys	Glu	Ser	Leu	Val	Lys	Lys	Leu	Lys	Asp	Lys	Lys

				245				250				255			
Asn	Asp	Leu	Gln	Asn	Leu	Ile	Asp	Val	Val	Leu	Ser	Lys	Gly	Thr	Lys
				260				265				270			
Tyr	Thr	Gly	Cys	Ile	Thr	Ile	Pro	Arg	Thr	Leu	Asp	Gly	Arg	Leu	Gln
				275				280				285			
Val	His	Gly	Arg	Lys	Gly	Phe	Pro	His	Val	Val	Tyr	Gly	Lys	Leu	Trp
				290				295				300			
Arg	Phe	Asn	Glu	Met	Thr	Lys	Asn	Glu	Thr	Arg	His	Val	Asp	His	Cys
				305				310				315			
Lys	His	Ala	Phe	Glu	Met	Lys	Ser	Asp	Met	Val	Cys	Val	Asn	Pro	Tyr
				320				325				330			
His	Tyr	Glu	Ile	Val	Ile	Gly	Thr	Met	Ile	Val	Gly	Gln	Arg	Asp	His
				335				340				345			
Asp	Asn	Arg	Asp	Met	Pro	Pro	Pro	His	Gln	Arg	Tyr	His	Thr	Pro	Gly
				350				355				360			
Arg	Gln	Asp	Pro	Val	Asp	Asp	Met	Ser	Arg	Phe	Ile	Pro	Pro	Ala	Ser
				365				370				375			
Ile	Arg	Pro	Pro	Pro	Met	Asn	Met	His	Thr	Arg	Pro	Gln	Pro	Met	Pro
				380				385				390			
Gln	Gln	Leu	Pro	Ser	Val	Gly	Ala	Thr	Phe	Ala	His	Pro	Leu	Pro	His
				400				405				410			
Gln	Ala	Pro	His	Asn	Pro	Gly	Val	Ser	His	Pro	Tyr	Ser	Ile	Ala	Pro
				415				420				425			
Gln	Thr	His	Tyr	Pro	Leu	Asn	Met	Asn	Pro	Ile	Pro	Gln	Met	Pro	Gln
				430				435				440			
Met	Pro	Gln	Met	Pro	Pro	Pro	Leu	His	Gln	Gly	Tyr	Gly	Met	Asn	Gly
				445				450				455			
Pro	Ser	Cys	Ser	Ser	Glu	Asn	Asn	Asn	Pro	Phe	His	Gln	Asn	His	His
				460				465				470			
Tyr	Asn	Asp	Ile	Ser	His	Pro	Asn	His	Tyr	Ser	Tyr	Asp	Cys	Gly	Pro
				475				480				485			
Asn	Leu	Tyr	Gly	Phe	Pro	Thr	Pro	Tyr	Pro	Asp	Phe	His	His	Pro	Phe
				490				495				500			
Asn	Gln	Gln	Pro	His	Gln	Pro	Pro	Gln	Leu	Ser	Gln	Asn	His	Thr	Ser
				505				510				515			
Gln	Gln	Gly	Ser	His	Gln	Pro	Gly	His	Gln	Gly	Gln	Val	Pro	Asn	Asp
				520				525				530			
Pro	Pro	Ile	Ser	Arg	Pro	Val	Leu	Gln	Pro	Ser	Thr	Val	Thr	Leu	Asp
				535				540				545			
Val	Phe	Arg	Arg	Tyr	Cys	Arg	Gln	Thr	Phe	Gly	Asn	Arg	Phe	Phe	Glu
				550				555				560			
Gly	Glu	Ser	Glu	Gln	Ser	Gly	Ala	Ile	Ile	Arg	Ser	Ser	Asn	Lys	Phe
				565				570				575			
Ile	Glu	Glu	Phe	Asp	Ser	Pro	Ile	Cys	Gly	Val	Thr	Val	Val	Arg	Pro
				580				585				590			
Arg	Met	Thr	Asp	Gly	Glu	Val	Leu	Glu	Asn	Ile	Met	Pro	Glu	Asp	Ala
				595				600				605			
Pro	Tyr	His	Asp	Ile	Cys	Lys	Phe	Ile	Leu	Arg	Leu	Thr	Ser	Glu	Ser
				610				615				620			
Val	Thr	Phe	Ser	Gly	Glu	Gly	Pro	Glu	Val	Ser	Asp	Leu	Asn	Glu	Lys
				625				630				635			
Trp	Gly	Thr	Ile	Val	Tyr	Tyr	Glu	Lys	Asn	Leu	Gln	Ile	Gly	Glu	Lys
				640				645				650			
Lys	Cys	Ser	Arg	Gly	Asn	Phe	His	Val	Asp	Gly	Gly	Phe	Ile	Cys	Ser
				655				660				665			
Glu	Asn	Arg	Tyr	Ser	Leu	Gly	Leu	Glu	Pro	Asn	Pro	Ile			

705		710		715		720
Tyr Lys Lys Asp Gly Ser Val Trp Leu Gln Asn Arg Met Lys Tyr Pro						
	725		730			735
Val Phe Val Thr Ser Gly Tyr Leu Asp Glu Gln Ser Gly Gly Leu Lys						
	740		745			750
Lys Asp Lys Val His Lys Val Tyr Gly Cys Ala Ser Ile Lys Thr Phe						
	755		760			765
Gly Phe Asn Val Ser Lys Gln Ile Ile Arg Asp Ala Leu Leu Ser Lys						
	770		775			780
Gln Met Ala Thr Met Tyr Leu Gln Gly Lys Leu Thr Pro Met Asn Tyr						
	785		790			800
Ile Tyr Glu Lys Lys Thr Gln Glu Glu Leu Arg Arg Glu Ala Thr Arg						
	805		810			815
Thr Thr Asp Ser Leu Ala Lys Tyr Cys Cys Val Arg Val Ser Phe Cys						
	820		825			830
Lys Gly Phe Gly Glu Ala Tyr Pro Glu Arg Pro Ser Ile His Asp Cys						
	835		840			845
Pro Val Trp Ile Glu Leu Lys Ile Asn Ile Ala Tyr Asp Phe Met Asp						
	850		855			860
Ser Ile Cys Gln Tyr Ile Thr Asn Cys Phe Glu Pro Leu Gly Met Glu						
	865		870			875
Asp Phe Ala Lys Leu Gly Ile Asn Val Ser Asp Asp						880
	885		890			

<210> 43  
 <211> 3499  
 <212> DNA  
 <213> Caenorhabditis elegans

<400> 43	
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tcacccctc ctcttactcc ttctttctcg tccgctacta ctgtatcttc tggacatcta	180
cctgtataca caccagtggc cagtcactcg ccattacaat ttcacatcaatt gacacttctt	240
caacaacaac cgccgtcctc attcactccc gattcttctt catcctcaac atcgtcgtct	300
ttggctgaaa ttcccgaaga cgttatgatg gagatgctgg tagatcaggg aactgatgca	360
tcgtcatccg cctccacgtc cacctcatct gtttcgagat tcggagcgga cacgttcattg	420
aatacaccgg atgatgtgat gatgaatgat gatatggaac cgatttctcg tgatcgggtgc	480
aatacgtggc caatgcgtag gccgcaactc gaaccaccac tcaactcgag tccattatt	540
catgaacaaa ttctgaaga agatgctgac ctatacggga gcaatgagca atgtggacag	600
ctcggcggag catcttcaaa cgggtcgaca gcaatgcttc atactccaga tgggaagcaat	660
tctcatcaga catcgtttct tcggagtctc agaatgtccg aatcgccaga cgataccgta	720
tcgggaaaaa agacaacgac cagacgggaac gcttggggaa atatgtcata tgctgaactt	780
atcactacag ccattatggc tagtccagag aaacggttaa ctcttgaca agtttacgaa	840
tggatgggtc agaatgttcc atacttcagg gataagggag attcgaacag ttcagctgga	900
tggagaact cgatccgtca caatctgtct cttcattctc gtttcatgcg aattcagaat	960
gaaggagccg gaaagagctc gtggtgggtt attaattccag atgcaaagcc aggaatgaat	1020
ccacggcgta cacgtgaacg atccaatact attgagacga ctacaaaggc tcaactcgaa	1080
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<211> 510

<212> PRT

<213> Caenorhabditis elegans

<400> 45

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 <212> PRT  
 <213> Caenorhabditis elegans

<400> 48

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Glu	Asn	Gly	Lys	Gly	Ser	Leu	Leu	Leu	Glu	Asn	Glu	Gly	Val	Ala	Asp
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Ile	Ile	Thr	Met	Cys	Pro	Phe	Gly	Glu	Val	Ile	Ser	Val	Val	Phe	Pro
65					70					75					80
Trp	Phe	Leu	Ala	Asn	Val	Arg	Thr	Ser	Leu	Glu	Ile	Lys	Leu	Ser	Asp
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Phe	Lys	His	Gln	Leu	Phe	Glu	Leu	Ile	Ala	Pro	Met	Lys	Trp	Gly	Thr
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Ile	Asn	Arg	Asp	Lys	Glu	Leu	Met	Ser	Asp	Ile	Ser	His	Cys	Leu	Gly
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Ala	Lys	Leu	Ser	Tyr	Gln	Met	Phe	Trp	Arg	Lys	Arg	Lys	Ala	Glu	Ile
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Asn	Gly	Val	Cys	Glu	Lys	Met	Met	Lys	Ile	Gln	Ile	Glu	Phe	Asn	Pro
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Lys	Leu	Asp	Val	Tyr	Asp	Thr	Asp	Asp	Pro	Ala	Asp	Glu	Gly	Trp	Phe
	290					295						300			
Leu	Gln	Leu	Ala	Gly	Arg	Thr	Thr	Phe	Val	Thr	Asn	Pro	Asp	Val	Lys
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TC240" E5E4B60

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Gln	Ser	Lys	Asn	Ser	Asp	Met	Val	Met	Thr	Asp	Phe	Arg	Pro	Thr	Ala
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Ser	Leu	Lys	Gln	Val	Ser	Leu	Trp	Asp	Leu	Asp	Ala	Asn	Leu	Met	Ile
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Arg	Pro	Val	Asn	Ile	Ser	Gly	Phe	Asp	Phe	Pro	Ala	Asp	Val	Asp	Met
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Tyr	Val	Arg	Ile	Glu	Phe	Ser	Val	Tyr	Val	Gly	Thr	Leu	Thr	Leu	Ala
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	450					455					460				
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Val	Leu	Ser	Ile	Arg	Val	Leu	Tyr	Gly	Lys	Val	Lys	Leu	Lys	Ser	Glu
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Glu	Phe	Glu	Val	Gly	Trp	Val	Asn	Met	Ser	Leu	Thr	Asp	Trp	Arg	Asp
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Glu	Leu	Arg	Gln	Gly	Gln	Phe	Leu	Phe	His	Leu	Trp	Ala	Pro	Glu	Pro
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Thr	Ala	Asn	Arg	Ser	Arg	Ile	Gly	Glu	Asn	Gly	Ala	Arg	Ile	Gly	Thr
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Arg	Arg	Tyr	Ile	Gln	Lys	Gln	Glu	Pro	Asp	Leu	Leu	Ile	Val	Leu	Ser
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Leu	Pro	Leu	Ile	Gln	Ala	Leu	Lys	Tyr	Glu	Pro	Arg	Ala	Gln	Ser	Glu
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Val	Gly														

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Leu His Leu Pro Phe Cys Ala Met Ile Phe Lys Asn Gly Asp Asp Leu  
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Arg Gln Asp Met Leu Val Leu Gln Val Leu Glu Val Met Asp Asn Ile  
885 890 895  
Trp Lys Ala Ala Asn Ile Asp Cys Cys Leu Asn Pro Tyr Ala Val Leu  
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Pro Met Gly Glu Met Ile Gly Ile Ile Glu Val Val Pro Asn Cys Lys  
915 920 925  
Thr Ile Phe Glu Ile Gln Val Gly Thr Gly Phe Met Asn Thr Ala Val  
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Arg Ser Ile Asp Pro Ser Phe Met Asn Lys Trp Ile Arg Lys Gln Cys  
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Pro Ile Glu Lys Lys Ile Asp Asn Thr Gln Ala Met Lys Lys Tyr Phe  
980 985 990  
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Tyr Glu Val Met Trp Asn Asn Arg Asp Leu Phe Val Ser Leu Phe Thr  
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<210> 50  
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<212> PRT
<213> Caenorhabditis elegans

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Leu Ala Gln Val Tyr Glu Trp Met Val Gln Asn Val Pro Tyr Phe Arg
 35          40          45
Asp Lys Gly Asp Ser Asn Ser Ser Ala Gly Trp Lys Asn Ser Ile Arg
 50          55          60
His Asn Leu Ser Leu His Ser Arg Phe Met Arg Ile Gln Asn Glu Gly
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<212> PRT
<213> Caenorhabditis elegans

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Gly	Ser	Gln	Phe	Ser	Lys	Trp	Pro	Ala	Ser	Pro	Gly	Ser	His	Ser	Asn
	290					295					300				
Asp	Asp	Phe	Asp	Asn	Trp	Ser	Thr	Phe	Arg	Pro	Arg	Thr	Ser	Ser	Asn
305					310					315					320
Ala	Ser	Thr	Ile	Ser	Gly	Arg	Leu	Ser	Pro	Ile	Met	Thr	Glu	Gln	Asp
				325					330					335	
Asp	Leu	Gly	Glu	Gly	Asp	Val	His	Ser	Met	Val	Tyr	Pro	Pro	Ser	Ala
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		355					360					365			
Glu	Asn	Met	Glu	Asn	Leu	Leu	Asp	Asn	Leu	Asn	Leu	Leu	Ser	Ser	Pro
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Thr	Ser	Leu	Thr	Val	Ser	Thr	Gln	Ser	Ser	Pro	Gly	Thr	Met	Met	Gln
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Gln	Thr	Pro	Cys	Tyr	Ser	Phe	Ala	Pro	Pro	Asn	Thr	Ser	Leu	Asn	Ser
				405					410					415	
Pro	Ser	Pro	Asn	Tyr	Gln	Lys	Tyr	Thr	Tyr	Gly	Gln	Ser	Ser	Met	Ser
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Tyr	Gly	Gly	Met	Ser	Gln	Tyr	Asn	Cys	Ala	Pro	Gly	Leu	Leu	Lys	Glu
	450					455					460				
Leu	Leu	Thr	Ser	Asp	Ser	Pro	Pro	His	Asn	Asp	Ile	Met	Thr	Pro	Val
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Met	Met	Gly	Pro	Asn	Ser	Val	Met	Ser	Thr	Tyr	Gly	Ser	Gln	Ala	Ser
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Gln	Gln	Thr	Ser	Ala	Val	Asn	Gly	Arg	Pro	Leu	Pro	His	Thr	Val	Ser
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Pro	Val	Gln	Val	Pro	Leu	Pro	His	Pro	Met	Gln	Met	Ser	Ala	Leu	Gly
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Leu	His	Gln	Glu	Lys	Leu	Pro	Ser	Asp	Leu	Asp	Gly	Met	Phe	Ile	Glu
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Arg	Leu	Asp	Cys	Asp	Met	Glu	Ser	Ile	Ile	Arg	Asn	Asp	Leu	Met	Asp
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Gly	Asp	Thr	Leu	Asp	Phe	Asn	Phe	Asp	Asn	Val	Leu	Pro	Asn	Gln	Ser
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Phe	Pro	His	Ser	Val	Lys	Thr	Thr	Thr	His	Ser	Trp	Val	Ser	Gly	
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 <212> PRT  
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 <213> Caenorhabditis elegans

<400> 60  
 Gln Val Leu Asp Asp His Asp Tyr Gly Arg Cys Val Asp Trp Trp Gly  
 1 5 10 15  
 Val Gly Val Val Met Tyr Glu Met Met Cys Gly Arg Leu Pro Phe Tyr  
 20 25 30  
 Ser Lys Asp His Asn Lys Leu Phe Glu Leu Ile Met Ala Gly Asp Leu  
 35 40 45  
 Arg Phe Pro Ser Lys Leu Ser Gln Glu Ala Arg Thr Leu Leu Thr Gly  
 50 55 60  
 Leu Leu Val Lys Asp Pro Thr Gln Arg Leu Gly Gly Gly Pro Glu Asp  
 65 70 75 80  
 Ala Leu Glu Ile Cys Arg Ala Asp Phe Phe Arg Thr Val Asp Trp Glu  
 85 90 95  
 Ala Thr Tyr Arg Lys Glu Ile Glu Pro Pro Tyr Lys Pro Asn Val Gln  
 100 105 110  
 Ser Glu Thr Asp Thr Ser Tyr Phe Asp  
 115 120

<210> 61  
 <211> 66  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 61  
 Thr Met Glu Asp Phe Asp Phe Leu Lys Val Leu Gly Lys Gly Thr Phe  
 1 5 10 15

Gly Lys Val Ile Leu Cys Lys Glu Lys Arg Thr Gln Lys Leu Tyr Ala  
                   20                  25                  30  
 Ile Lys Ile Leu Lys Lys Asp Val Ile Ile Ala Arg Glu Glu Val Ala  
                   35                  40                  45  
 His Thr Leu Thr Glu Asn Arg Val Leu Gln Arg Cys Lys His Pro Phe  
                   50                  55                  60  
 Leu Thr  
 65

<210> 62  
 <211> 45  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 62  
 Lys Leu Glu Asn Leu Leu Asp Lys Asp Gly His Ile Lys Ile Ala  
   1                  5                  10                  15  
 Asp Phe Gly Leu Cys Lys Glu Glu Ile Ser Phe Gly Asp Lys Thr Ser  
                   20                  25                  30  
 Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val  
                   35                  40                  45

<210> 63  
 <211> 57  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 63  
 Tyr Phe Gln Glu Leu Lys Tyr Ser Phe Gln Glu Gln His Tyr Leu Cys  
   1                  5                  10                  15  
 Phe Val Met Gln Phe Ala Asn Gly Gly Glu Leu Phe Thr His Val Arg  
                   20                  25                  30  
 Lys Cys Gly Thr Phe Ser Glu Pro Arg Ala Arg Phe Tyr Gly Ala Glu  
                   35                  40                  45  
 Ile Val Leu Ala Leu Gly Tyr Leu His  
                   50                  55

<210> 64  
 <211> 59  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 64  
 Ser Thr Phe Ala Ile Phe Tyr Phe Gln Thr Met Leu Phe Glu Lys Pro  
   1                  5                  10                  15  
 Arg Pro Asn Met Phe Met Val Arg Cys Leu Gln Trp Thr Thr Val Ile  
                   20                  25                  30  
 Glu Arg Thr Phe Tyr Ala Glu Ser Ala Glu Val Arg Gln Arg Trp Ile  
                   35                  40                  45  
 His Ala Ile Glu Ser Ile Ser Lys Lys Tyr Lys  
                   50                  55

<210> 65  
 <211> 33

<212> PRT

<213> Caenorhabditis elegans

<400> 65

Leu Gln Glu Leu Lys Tyr Ser Phe Gln Thr Asn Asp Arg Leu Cys Phe  
 1 5 10 15  
 Val Met Glu Phe Ala Ile Gly Gly Asp Leu Tyr Tyr His Leu Asn Arg  
 20 25 30  
 Glu

<210> 66

<211> 21

<212> PRT

<213> Caenorhabditis elegans

<400> 66

Val Val Ile Glu Gly Trp Leu His Lys Lys Gly Glu His Ile Arg Asn  
 1 5 10 15  
 Trp Arg Pro Arg Phe  
 20

<210> 67

<211> 26

<212> PRT

<213> Caenorhabditis elegans

<400> 67

Phe Ser Glu Pro Arg Ala Arg Phe Tyr Gly Ser Glu Ile Val Leu Ala  
 1 5 10 15  
 Leu Gly Tyr Leu His Ala Asn Ser Ile Val  
 20 25

<210> 68

<211> 39

<212> PRT

<213> Caenorhabditis elegans

<400> 68

Ile Arg Val Ser Phe Cys Lys Gly Phe Gly Glu Thr Tyr Ser Arg Leu  
 1 5 10 15  
 Lys Val Val Asn Leu Pro Cys Trp Ile Glu Ile Ile Leu His Glu Pro  
 20 25 30  
 Ala Asp Glu Tyr Asp Thr Val  
 35

<210> 69

<211> 45

<212> PRT

<213> Caenorhabditis elegans

<400> 69

Ser Arg Asn Ser Lys Ser Ser Gln Ile Arg Asn Thr Val Gly Ala Gly  
 1 5 10 15



Ile Gln Leu Ala Tyr Glu Asn Gly Glu Leu Trp Leu Thr Val Leu Thr  
                   20                  25                  30  
 Asp Gln Ile Val Phe Val Gln Cys Pro Phe Leu Asn Gln  
           35                  40                  45

<210> 70  
 <211> 29  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 70  
 Asn Glu Met Leu Asp Pro Glu Pro Lys Tyr Pro Lys Glu Glu Lys Pro  
   1                  5                  10                  15  
 Trp Cys Thr Ile Phe Tyr Tyr Glu Leu Thr Val Arg Val  
           20                  25

<210> 71  
 <211> 29  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 71  
 Gln Leu Gly Lys Ala Phe Glu Ala Lys Val Pro Thr Ile Thr Ile Asp  
   1                  5                  10                  15  
 Gly Ala Thr Gly Ala Ser Asp Glu Cys Arg Met Ser Leu  
           20                  25

<210> 72  
 <211> 105  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 72  
 Ser Pro Asp Asp Gly Leu Leu Asp Ser Ser Glu Glu Ser Arg Arg Arg  
   1                  5                  10                  15  
 Gln Lys Thr Cys Arg Val Cys Gly Asp His Ala Thr Gly Tyr Asn Phe  
           20                  25                  30  
 Asn Val Ile Thr Cys Glu Ser Cys Lys Ala Phe Phe Arg Arg Asn Ala  
           35                  40                  45  
 Leu Arg Pro Lys Glu Phe Lys Cys Pro Tyr Ser Glu Asp Cys Glu Ile  
           50                  55                  60  
 Asn Ser Val Ser Arg Arg Phe Cys Gln Lys Cys Arg Leu Arg Lys Cys  
   65                  70                  75                  80  
 Phe Thr Val Gly Met Lys Lys Glu Trp Ile Leu Asn Glu Glu Gln Leu  
           85                  90                  95  
 Arg Arg Arg Lys Asn Ser Arg Leu Asn  
           100                  105

<210> 73  
 <211> 89  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 73

Leu Asp Ser Ser Glu Glu Ser Arg Arg Arg Gln Lys Thr Cys Arg Val  
 1 5 10 15  
 Cys Gly Asp His Ala Thr Gly Tyr Asn Phe Asn Val Ile Thr Cys Glu  
 20 25 30  
 Ser Cys Lys Ala Phe Phe Arg Arg Asn Ala Leu Arg Pro Lys Glu Phe  
 35 40 45  
 Lys Cys Pro Tyr Ser Glu Asp Cys Glu Ile Asn Ser Val Ser Arg Arg  
 50 55 60  
 Phe Cys Gln Lys Cys Arg Leu Arg Lys Cys Phe Thr Val Gly Met Lys  
 65 70 75 80  
 Lys Glu Trp Ile Leu Asn Glu Glu Gln  
 85

<210> 74  
 <211> 73  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 74  
 Asp Ile Met Asn Ile Met Asp Val Thr Met Arg Arg Phe Val Lys Val  
 1 5 10 15  
 Ala Lys Gly Val Pro Ala Phe Arg Glu Val Ser Gln Glu Gly Lys Phe  
 20 25 30  
 Ser Leu Leu Lys Gly Gly Met Ile Glu Met Leu Thr Val Arg Gly Val  
 35 40 45  
 Thr Arg Tyr Asp Ala Ser Thr Asn Ser Phe Lys Thr Pro Thr Ile Lys  
 50 55 60  
 Gly Gln Asn Val Ser Val Asn Val Asp  
 65 70

<210> 75  
 <211> 112  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 75  
 Ser Gly Ser Leu Val Asp Leu Met Ile Lys Asn Leu Thr Ala Tyr Thr  
 1 5 10 15  
 Gln Gly Leu Asn Glu Thr Val Lys Asn Arg Thr Ala Glu Leu Glu Lys  
 20 25 30  
 Glu Gln Glu Lys Gly Asp Gln Leu Leu Met Glu Leu Leu Pro Lys Ser  
 35 40 45  
 Val Ala Asn Asp Leu Lys Asn Gly Ile Ala Val Asp Pro Lys Val Tyr  
 50 55 60  
 Glu Asn Ala Thr Ile Leu Tyr Ser Asp Ile Val Gly Phe Thr Ser Leu  
 65 70 75 80  
 Cys Ser Gln Ser Gln Pro Met Glu Val Val Thr Leu Leu Ser Gly Met  
 85 90 95  
 Tyr Gln Arg Phe Asp Leu Ile Ile Ser Gln Gln Gly Gly Tyr Lys Val  
 100 105 110

<210> 76  
 <211> 107  
 <212> PRT  
 <213> Caenorhabditis elegans

[illegible]

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<210> 77
<211> 43
<212> PRT
<213> Caenorhabditis elegans
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<210> 78
<211> 15
<212> PRT
<213> Caenorhabditis elegans
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<210> 79
<211> 67
<212> PRT
<213> Caenorhabditis elegans
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<210> 80  
 <211> 54  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 80  
 Val Ile Lys Lys Pro Glu Cys Cys Glu Asn Tyr Trp Tyr Lys Val Met  
 1 5 10 15  
 Lys Met Cys Trp Arg Tyr Ser Pro Arg Asp Arg Pro Thr Phe Leu Gln  
 20 25 30  
 Leu Val His Leu Leu Ala Ala Glu Ala Ser Pro Glu Phe Arg Asp Leu  
 35 40 45  
 Ser Phe Val Leu Thr Asp  
 50

<210> 81  
 <211> 69  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 81  
 Lys Gln Asp Ser Gly Met Ala Ser Glu Leu Lys Asp Ile Phe Ala Asn  
 1 5 10 15  
 Ile His Thr Ile Thr Gly Tyr Leu Leu Val Arg Gln Ser Ser Pro Phe  
 20 25 30  
 Ile Ser Leu Asn Met Phe Arg Asn Leu Arg Arg Ile Glu Ala Lys Ser  
 35 40 45  
 Leu Phe Arg Asn Leu Tyr Ala Ile Thr Val Phe Glu Asn Pro Asn Leu  
 50 55 60  
 Lys Lys Leu Phe Asp  
 65

<210> 82  
 <211> 52  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 82  
 Phe Pro His Leu Arg Glu Ile Thr Gly Thr Leu Leu Val Phe Glu Thr  
 1 5 10 15  
 Glu Gly Leu Val Asp Leu Arg Lys Ile Phe Pro Asn Leu Arg Val Ile  
 20 25 30  
 Gly Gly Arg Ser Leu Ile Gln His Tyr Ala Leu Ile Ile Tyr Arg Asn  
 35 40 45  
 Pro Asp Leu Glu  
 50

<210> 83  
 <211> 46  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 83  
 Glu Ile Gly Leu Asp Lys Leu Ser Val Ile Arg Asn Gly Gly Val Arg  
 1 5 10 15

TOLEDO-CEITH360

Ile Ile Asp Asn Arg Lys Leu Cys Tyr Thr Lys Thr Ile Asp Trp Lys  
 20 25 30  
 His Leu Ile Thr Ser Ser Ile Asn Asp Val Val Val Asp Asn  
 35 40 45

<210> 84  
 <211> 36  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 84  
 Tyr Asn Ala Asp Asp Trp Glu Leu Arg Gln Asp Asp Val Val Leu Gly  
 1 5 10 15  
 Gln Gln Cys Gly Glu Gly Ser Phe Gly Lys Val Tyr Leu Gly Thr Gly  
 20 25 30  
 Asn Asn Val Val  
 35

<210> 85  
 <211> 24  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 85  
 Asp Ser Leu Ala Lys Tyr Cys Cys Val Arg Val Ser Phe Cys Lys Gly  
 1 5 10 15  
 Phe Gly Glu Ala Tyr Pro Glu Arg  
 20

<210> 86  
 <211> 13  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 86  
 Gly Trp Asp Trp Ile Val Ala Pro Pro Arg Tyr Asn Ala  
 1 5 10

<210> 87  
 <211> 121  
 <212> PRT  
 <213> Homo sapiens

<400> 87  
 Glu Val Leu Glu Asp Asn Asp Tyr Gly Arg Ala Val Asp Trp Trp Gly  
 1 5 10 15  
 Leu Gly Val Val Met Tyr Glu Met Met Cys Gly Arg Leu Pro Phe Tyr  
 20 25 30  
 Asn Gln Asp His Glu Lys Leu Phe Glu Leu Ile Leu Met Glu Glu Ile  
 35 40 45  
 Arg Phe Pro Arg Thr Leu Gly Pro Glu Ala Lys Ser Leu Leu Ser Gly  
 50 55 60  
 Leu Leu Lys Lys Asp Pro Thr Gln Arg Leu Gly Gly Gly Ser Glu Asp  
 65 70 75 80

Ala Lys Glu Ile Met Gln His Arg Phe Phe Ala Asn Ile Val Trp Gln  
85 90 95  
Asp Val Tyr Glu Lys Lys Leu Ser Pro Pro Phe Lys Pro Gln Val Thr  
100 105 110  
Ser Glu Thr Asp Thr Arg Tyr Phe Asp  
115 120

<210> 88  
<211> 121  
<212> PRT  
<213> Caenorhabditis elegans

<400> 88  
Gln Val Leu Asp Asp His Asp Tyr Gly Arg Cys Val Asp Trp Trp Gly  
1 5 10 15  
Val Gly Val Val Met Tyr Glu Met Met Cys Gly Arg Leu Pro Phe Tyr  
20 25 30  
Ser Lys Asp His Asn Lys Leu Phe Glu Leu Ile Met Ala Gly Asp Leu  
35 40 45  
Arg Phe Pro Ser Lys Leu Ser Gln Glu Ala Arg Thr Leu Leu Thr Gly  
50 55 60  
Leu Leu Val Lys Asp Pro Thr Gln Arg Leu Gly Gly Gly Pro Glu Asp  
65 70 75 80  
Ala Leu Glu Ile Cys Arg Ala Asp Phe Phe Arg Thr Val Asp Trp Glu  
85 90 95  
Ala Thr Tyr Arg Lys Glu Ile Glu Pro Pro Tyr Lys Pro Asn Val Gln  
100 105 110  
Ser Glu Thr Asp Thr Ser Tyr Phe Asp  
115 120

<210> 89  
<211> 66  
<212> PRT  
<213> Homo sapiens

<400> 89  
Thr Met Asn Glu Phe Glu Tyr Leu Lys Leu Leu Gly Lys Gly Thr Phe  
1 5 10 15  
Gly Lys Val Ile Leu Val Lys Glu Lys Ala Thr Gly Arg Tyr Tyr Ala  
20 25 30  
Met Lys Ile Leu Lys Lys Glu Val Ile Val Ala Lys Asp Glu Val Ala  
35 40 45  
His Thr Leu Thr Glu Asn Arg Val Leu Gln Asn Ser Arg His Pro Phe  
50 55 60  
Leu Thr  
65

<210> 90  
<211> 66  
<212> PRT  
<213> Caenorhabditis elegans

<400> 90  
Thr Met Glu Asp Phe Asp Phe Leu Lys Val Leu Gly Lys Gly Thr Phe  
1 5 10 15

Gly Lys Val Ile Leu Cys Lys Glu Lys Arg Thr Gln Lys Leu Tyr Ala  
                   20                  25                  30  
 Ile Lys Ile Leu Lys Lys Asp Val Ile Ile Ala Arg Glu Glu Val Ala  
                   35                  40                  45  
 His Thr Leu Thr Glu Asn Arg Val Leu Gln Arg Cys Lys His Pro Phe  
           50                  55                  60  
 Leu Thr  
 65

<210> 91  
 <211> 45  
 <212> PRT  
 <213> Homo sapiens

<400> 91  
 Lys Leu Glu Asn Leu Met Leu Asp Lys Asp Gly His Ile Lys Ile Thr  
   1                  5                  10                  15  
 Asp Phe Gly Leu Cys Lys Glu Gly Ile Lys Asp Gly Ala Thr Met Lys  
                   20                  25                  30  
 Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val  
           35                  40                  45

<210> 92  
 <211> 45  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 92  
 Lys Leu Glu Asn Leu Leu Leu Asp Lys Asp Gly His Ile Lys Ile Ala  
   1                  5                  10                  15  
 Asp Phe Gly Leu Cys Lys Glu Glu Ile Ser Phe Gly Asp Lys Thr Ser  
                   20                  25                  30  
 Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val  
           35                  40                  45

<210> 93  
 <211> 57  
 <212> PRT  
 <213> Homo sapiens

<400> 93  
 Phe Leu Thr Ala Leu Lys Tyr Ser Phe Gln Thr His Asp Arg Leu Cys  
   1                  5                  10                  15  
 Phe Val Met Glu Tyr Ala Asn Gly Gly Glu Leu Phe Phe His Leu Ser  
                   20                  25                  30  
 Arg Glu Arg Val Phe Ser Glu Asp Arg Ala Arg Phe Tyr Gly Ala Glu  
           35                  40                  45  
 Ile Val Ser Ala Leu Asp Tyr Leu His  
   50                  55

<210> 94  
 <211> 57  
 <212> PRT  
 <213> Caenorhabditis elegans

[illegible]

<210> 95

<212> PRT

<213> Homo sapiens

Asn	Asn	Phe	Ser	Val	Ala	Gln	Cys	Gln	Leu	Met	Lys	Thr	Glu	Arg	Pro
1				5					10					15	
Arg	Pro	Asn	Thr	Phe	Ile	Ile	Arg	Cys	Leu	Gln	Trp	Thr	Thr	Val	Ile
			20					25					30		
Glu	Arg	Thr	Phe	His	Val	Glu	Thr	Pro	Glu	Glu	Arg	Glu	Glu	Trp	Ala
		35					40					45			
Thr	Ala	Ile	Gln	Thr	Val	Ala	Asp	Gly	Leu	Lys					
	50					55									

<211> 59

<212> PRT

<213> Caenorhabditis elegans

Ser	Thr	Phe	Ala	Ile	Phe	Tyr	Phe	Gln	Thr	Met	Leu	Phe	Glu	Lys	Pro
1				5					10					15	
Arg	Pro	Asn	Met	Phe	Met	Val	Arg	Cys	Leu	Gln	Trp	Thr	Thr	Val	Ile
			20					25					30		
Glu	Arg	Thr	Phe	Tyr	Ala	Glu	Ser	Ala	Glu	Val	Arg	Gln	Arg	Trp	Ile
			35				40					45			
His	Ala	Ile	Glu	Ser	Ile	Ser	Lys	Lys	Tyr	Lys					
	50					55									

<211> 33

&lt;212&gt; PRT

<213> Homo sapiens

Leu Thr Ala Leu Lys Tyr Ser Phe Gln Thr His Asp Arg Leu Cys Phe  
1 5 10 15  
Val Met Glu Tyr Ala Asn Gly Gly Glu Leu Phe Phe His Leu Ser Arg  
20 25 30  
Glu

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<211> 33  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 98  
 Leu Gln Glu Leu Lys Tyr Ser Phe Gln Thr Asn Asp Arg Leu Cys Phe  
 1 5 10 15  
 Val Met Glu Phe Ala Ile Gly Gly Asp Leu Tyr Tyr His Leu Asn Arg  
 20 25 30  
 Glu

<210> 99  
 <211> 473  
 <212> PRT  
 <213> Homo sapiens

<400> 99  
 Met Leu Gly Thr Val Lys Met Glu Gly His Glu Thr Ser Asp Trp Asn  
 1 5 10 15  
 Ser Tyr Tyr Ala Asp Thr Gln Glu Ala Tyr Ser Ser Val Pro Val Ser  
 20 25 30  
 Asn Met Asn Ser Gly Leu Gly Ser Met Asn Ser Met Asn Thr Tyr Met  
 35 40 45  
 Thr Met Asn Thr Met Thr Thr Ser Gly Asn Met Thr Pro Ala Ser Phe  
 50 55 60  
 Asn Met Ser Tyr Ala Asn Pro Ala Leu Gly Ala Gly Leu Ser Pro Gly  
 65 70 75 80  
 Ala Val Ala Gly Met Pro Gly Gly Ser Ala Gly Ala Met Asn Ser Met  
 85 90 95  
 Thr Ala Ala Gly Val Thr Ala Met Gly Thr Ala Leu Ser Pro Ser Gly  
 100 105 110  
 Met Gly Ala Met Gly Ala Gln Gln Ala Ala Ser Met Met Asn Gly Leu  
 115 120 125  
 Gly Pro Tyr Ala Ala Ala Met Asn Pro Cys Met Ser Pro Met Ala Tyr  
 130 135 140  
 Ala Pro Ser Asn Leu Gly Arg Ser Arg Ala Gly Gly Gly Gly Asp Ala  
 145 150 155 160  
 Lys Thr Phe Lys Arg Ser Tyr Pro His Ala Lys Pro Pro Tyr Ser Tyr  
 165 170 175  
 Ile Ser Leu Ile Thr Met Ala Ile Gln Arg Ala Pro Ser Lys Met Leu  
 180 185 190  
 Thr Leu Ser Glu Ile Tyr Gln Trp Ile Met Asp Leu Phe Pro Tyr Tyr  
 195 200 205  
 Arg Gln Asn Gln Gln Arg Trp Gln Asn Ser Ile Arg His Ser Leu Ser  
 210 215 220  
 Phe Asn Asp Cys Phe Val Lys Val Ala Arg Ser Pro Asp Lys Pro Gly  
 225 230 235 240  
 Lys Gly Ser Tyr Trp Thr Leu His Pro Asp Ser Gly Asn Met Phe Glu  
 245 250 255  
 Asn Gly Cys Tyr Leu Arg Arg Gln Lys Arg Phe Lys Cys Glu Lys Gln  
 260 265 270  
 Pro Gly Ala Gly Gly Gly Gly Gly Ser Gly Ser Gly Gly Ser Gly Ala  
 275 280 285  
 Lys Gly Gly Pro Glu Ser Arg Lys Asp Pro Ser Gly Ala Ser Asn Pro  
 290 295 300  
 Ser Ala Asp Ser Pro Leu His Arg Gly Val His Gly Lys Thr Gly Gln

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305					310					315				320
Leu	Glu	Gly	Ala	Pro	Ala	Pro	Gly	Pro	Ala	Ala	Ser	Pro	Gln	Thr
				325					330					335
Asp	His	Ser	Gly	Ala	Thr	Ala	Thr	Gly	Gly	Ala	Ser	Glu	Leu	Lys
			340					345					350	
Pro	Ala	Ser	Ser	Thr	Ala	Pro	Pro	Ile	Ser	Ser	Gly	Pro	Gly	Ala
		355					360					365		
Ala	Ser	Val	Pro	Ala	Ser	His	Pro	Ala	His	Gly	Leu	Ala	Pro	His
	370					375					380			
Ser	Gln	Leu	His	Leu	Lys	Gly	Asp	Pro	His	Tyr	Ser	Phe	Asn	His
385					390					395				400
Phe	Ser	Ile	Asn	Asn	Leu	Met	Ser	Ser	Ser	Glu	Gln	Gln	His	Lys
			405						410					415
Asp	Phe	Lys	Ala	Tyr	Glu	Gln	Ala	Leu	Gln	Tyr	Ser	Pro	Tyr	Gly
			420					425					430	
Thr	Leu	Pro	Ala	Ser	Leu	Pro	Leu	Gly	Ser	Ala	Ser	Val	Thr	Thr
		435					440					445		Arg
Ser	Pro	Ile	Glu	Pro	Ser	Ala	Leu	Glu	Pro	Ala	Tyr	Tyr	Gln	Gly
	450					455					460			Val
Tyr	Ser	Arg	Pro	Val	Leu	Asn	Thr	Ser						
465					470									

<210> 100  
 <211> 347  
 <212> PRT  
 <213> Homo sapiens

<400> 100														
Met	Leu	Gly	Ser	Val	Lys	Met	Glu	Ala	His	Asp	Leu	Ala	Glu	Trp
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Tyr	Tyr	Pro	Glu	Ala	Gly	Glu	Val	Tyr	Ser	Pro	Val	Thr	Pro	Val
			20					25				30		
Thr	Met	Ala	Pro	Leu	Asn	Ser	Tyr	Met	Thr	Leu	Asn	Pro	Leu	Ser
		35				40					45			
Pro	Tyr	Pro	Gly	Gly	Leu	Pro	Ala	Ser	Pro	Leu	Pro	Ser	Gly	Pro
	50				55					60				
Ala	Pro	Pro	Ala	Pro	Ala	Ala	Pro	Leu	Gly	Pro	Thr	Phe	Pro	Gly
65					70				75				80	
Gly	Leu	Ser	Gly	Gly	Ser	Ser	Ser	Ser	Gly	Tyr	Gly	Ala	Pro	Gly
			85					90					95	
Gly	Leu	Val	His	Gly	Lys	Glu	Met	Pro	Lys	Gly	Tyr	Arg	Ala	Pro
			100					105					110	
His	Ala	Lys	Pro	Pro	Tyr	Ser	Tyr	Ile	Ser	Leu	Ile	Thr	Met	Ala
		115				120						125		
Gln	Gln	Ala	Pro	Gly	Lys	Val	Leu	Thr	Leu	Ser	Glu	Ile	Tyr	Gln
	130				135						140			Trp
Ile	Met	Asp	Leu	Phe	Pro	Tyr	Tyr	Arg	Asp	Asn	Gln	Gln	Arg	Trp
145					150				155					160
Asn	Ser	Ile	Arg	His	Ser	Leu	Ser	Phe	Asn	Asp	Cys	Phe	Val	Lys
			165					170					175	
Ala	Arg	Ser	Pro	Asp	Lys	Pro	Gly	Lys	Gly	Ser	Tyr	Trp	Ala	Leu
			180				185						190	
Pro	Ser	Ser	Gly	Asn	Met	Phe	Glu	Asn	Gly	Cys	Tyr	Leu	Arg	Arg
	195						200					205		Gln
Lys	Arg	Phe	Lys	Leu	Glu	Glu	Lys	Val	Lys	Lys	Gly	Gly	Ser	Gly
	210					215					220			Ala
Ser	Thr	Thr	Arg	Asn	Gly	Thr	Gly	Ser	Ala	Ala	Ser	Thr	Thr	Pro

225					230					235				240
Ala	Ala	Thr	Val	Thr	Ser	Pro	Pro	Gln	Pro	Pro	Pro	Pro	Ala	Pro
				245						250				255
Pro	Glu	Ala	Gln	Gly	Gly	Glu	Asp	Val	Gly	Ala	Leu	Asp	Cys	Gly
			260						265				270	
Pro	Ala	Ser	Ser	Thr	Pro	Tyr	Phe	Thr	Gly	Leu	Glu	Leu	Pro	Gly
		275					280					285		
Leu	Lys	Leu	Asp	Ala	Pro	Tyr	Asn	Phe	Asn	His	Pro	Phe	Ser	Ile
	290					295					300			Asn
Asn	Leu	Met	Ser	Glu	Gln	Thr	Pro	Ala	Pro	Pro	Lys	Leu	Asp	Val
305					310					315				320
Phe	Gly	Gly	Tyr	Gly	Ala	Glu	Gly	Gly	Glu	Pro	Gly	Val	Tyr	Tyr
				325					330					335
Gly	Leu	Tyr	Ser	Arg	Ser	Leu	Leu	Asn	Ala	Ser				
			340					345						

<210> 101  
 <211> 635  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 101														
Met	Met	Glu	Met	Leu	Val	Asp	Gln	Gly	Thr	Asp	Ala	Ser	Ser	Ser
1				5					10					15
Ser	Thr	Ser	Thr	Ser	Ser	Val	Ser	Arg	Phe	Gly	Ala	Asp	Thr	Phe
			20					25					30	Met
Asn	Thr	Pro	Asp	Asp	Val	Met	Met	Asn	Asp	Asp	Met	Glu	Pro	Ile
		35				40					45			Pro
Arg	Asp	Arg	Cys	Asn	Thr	Trp	Pro	Met	Arg	Arg	Pro	Gln	Leu	Glu
50				55					60					Pro
Pro	Leu	Asn	Ser	Ser	Pro	Ile	Ile	His	Glu	Gln	Ile	Pro	Glu	Glu
65				70					75					80
Ala	Asp	Leu	Tyr	Gly	Ser	Asn	Glu	Gln	Cys	Gly	Gln	Leu	Gly	Gly
				85				90					95	Ala
Ser	Ser	Asn	Gly	Ser	Thr	Ala	Met	Leu	His	Thr	Pro	Asp	Gly	Ser
			100				105						110	Asn
Ser	His	Gln	Thr	Ser	Phe	Pro	Ser	Glu	Cys	Tyr	Thr	Trp	Pro	Met
		115					120					125		Gln
Gln	Tyr	Ile	Tyr	Gln	Glu	Ser	Ala	Thr	Ile	Pro	His	His	His	Leu
130				135						140				
Asn	Gln	His	Asn	Asn	Pro	Tyr	His	Pro	Met	His	Pro	His	His	Gln
145				150					155					160
Pro	His	Met	Gln	Gln	Leu	Pro	Gln	Pro	Leu	Leu	Asn	Leu	Asn	Met
			165					170						175
Thr	Leu	Thr	Ser	Ser	Gly	Ser	Ser	Val	Ala	Ser	Ser	Ile	Gly	Gly
			180					185					190	Gly
Ala	Gln	Cys	Ser	Pro	Cys	Ala	Ser	Gly	Ser	Ser	Thr	Ala	Ala	Thr
		195					200				205			Asn
Ser	Ser	Gln	Gln	Gln	Gln	Thr	Val	Gly	Gln	Met	Leu	Ala	Ala	Ser
		210				215				220				Val
Pro	Cys	Ser	Ser	Ser	Gly	Met	Thr	Leu	Gly	Met	Ser	Leu	Asn	Leu
225				230					235					240
Gln	Gly	Gly	Gly	Pro	Met	Pro	Ala	Lys	Lys	Lys	Arg	Cys	Arg	Lys
				245				250						255
Pro	Thr	Asp	Gln	Leu	Ala	Gln	Lys	Lys	Pro	Asn	Pro	Trp	Gly	Glu
			260				265					270		Glu
Ser	Tyr	Ser	Asp	Ile	Ile	Ala	Lys	Ala	Leu	Glu	Ser	Ala	Pro	Asp

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      275              280              285
Arg Leu Lys Leu Asn Glu Ile Tyr Gln Trp Phe Ser Asp Asn Ile Pro
  290              295              300
Tyr Phe Gly Glu Arg Ser Ser Pro Glu Glu Ala Ala Gly Trp Lys Asn
  305              310              315
Ser Ile Arg His Asn Leu Ser Leu His Ser Arg Phe Met Arg Ile Gln
      325              330              335
Asn Glu Gly Ala Gly Lys Ser Ser Trp Trp Val Ile Asn Pro Asp Ala
      340              345              350
Lys Pro Gly Met Asn Pro Arg Arg Thr Arg Glu Arg Ser Asn Thr Ile
      355              360              365
Glu Thr Thr Thr Lys Ala Gln Leu Glu Lys Ser Arg Arg Gly Ala Lys
      370              375              380
Lys Arg Ile Lys Glu Arg Ala Leu Met Gly Ser Leu His Ser Thr Leu
  385              390              395
Asn Gly Asn Ser Ile Ala Gly Ser Ile Gln Thr Ile Ser His Asp Leu
      405              410              415
Tyr Asp Asp Asp Ser Met Gln Gly Ala Phe Asp Asn Val Pro Ser Ser
      420              425              430
Phe Arg Pro Arg Thr Gln Ser Asn Leu Ser Ile Pro Gly Ser Ser Ser
      435              440              445
Arg Val Ser Pro Ala Ile Gly Ser Asp Ile Tyr Asp Asp Leu Glu Phe
      450              455              460
Pro Ser Trp Val Gly Glu Ser Val Pro Ala Ile Pro Ser Asp Ile Val
  465              470              475
Asp Arg Thr Asp Gln Met Arg Ile Asp Ala Thr Thr His Ile Gly Gly
      485              490              495
Val Gln Ile Lys Gln Glu Ser Lys Pro Ile Lys Thr Glu Pro Ile Ala
      500              505              510
Pro Pro Pro Ser Tyr His Glu Leu Asn Ser Val Arg Gly Ser Cys Ala
      515              520              525
Gln Asn Pro Leu Leu Arg Asn Pro Ile Val Pro Ser Thr Asn Phe Lys
      530              535              540
Pro Met Pro Leu Pro Gly Ala Tyr Gly Asn Tyr Gln Asn Gly Gly Ile
  545              550              555
Thr Pro Ile Asn Trp Leu Ser Thr Ser Asn Ser Ser Pro Leu Pro Gly
      565              570              575
Ile Gln Ser Cys Gly Ile Val Ala Ala Gln His Thr Val Ala Ser Ser
      580              585              590
Ser Ala Leu Pro Ile Asp Leu Glu Asn Leu Thr Leu Pro Asp Gln Pro
      595              600              605
Leu Met Asp Thr Met Asp Val Asp Ala Leu Ile Arg His Glu Leu Ser
      610              615              620
Gln Ala Gly Gly Gln His Ile His Phe Asp Leu
  625              630              635

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<210> 102  
 <211> 501  
 <212> PRT  
 <213> Homo sapiens

<400> 102  
 Met Arg Ile Gln Pro Gln Lys Ala Ala Ala Ile Ile Asp Leu Asp Pro  
 1 5 10 15  
 Asp Phe Glu Pro Gln Ser Arg Pro Arg Ser Cys Thr Trp Pro Leu Pro  
 20 25 30  
 Arg Pro Glu Ile Ala Asn Gln Pro Ser Glu Pro Pro Glu Val Glu Pro

		35				40			45						
Asp	Leu	Gly	Glu	Lys	Val	His	Thr	Glu	Gly	Arg	Ser	Glu	Pro	Ile	Leu
50						55					60				
Leu	Pro	Ser	Arg	Leu	Ser	Glu	Pro	Ala	Gly	Gly	Pro	Gln	Pro	Gly	Ile
65						70					75				80
Leu	Gly	Ala	Val	Thr	Gly	Pro	Arg	Lys	Gly	Gly	Ser	Arg	Arg	Asn	Ala
					85				90					95	
Trp	Gly	Asn	Gln	Ser	Tyr	Ala	Glu	Phe	Ile	Ser	Gln	Ala	Ile	Glu	Ser
			100					105					110		
Ala	Pro	Glu	Lys	Arg	Leu	Thr	Leu	Ala	Gln	Ile	Tyr	Glu	Trp	Met	Val
		115					120					125			
Arg	Thr	Val	Pro	Tyr	Phe	Lys	Asp	Lys	Gly	Asp	Ser	Asn	Ser	Ser	Ala
130						135					140				
Gly	Trp	Lys	Asn	Ser	Ile	Arg	His	Asn	Leu	Ser	Leu	His	Ser	Lys	Phe
145					150					155					160
Ile	Lys	Val	His	Asn	Glu	Ala	Thr	Gly	Lys	Ser	Ser	Trp	Trp	Met	Leu
				165					170					175	
Asn	Pro	Glu	Gly	Gly	Lys	Ser	Gly	Lys	Ala	Pro	Arg	Arg	Arg	Ala	Ala
			180					185				190			
Ser	Met	Asp	Ser	Ser	Ser	Lys	Leu	Leu	Arg	Gly	Arg	Ser	Lys	Ala	Pro
		195				200					205				
Lys	Lys	Lys	Pro	Ser	Val	Leu	Pro	Ala	Pro	Pro	Glu	Gly	Ala	Thr	Pro
	210					215					220				
Thr	Ser	Pro	Val	Gly	His	Phe	Ala	Lys	Trp	Ser	Gly	Ser	Pro	Cys	Ser
225					230						235				240
Arg	Asn	Arg	Glu	Glu	Ala	Asp	Met	Trp	Thr	Thr	Phe	Arg	Pro	Arg	Ser
				245					250					255	
Ser	Ser	Asn	Ala	Ser	Ser	Val	Ser	Thr	Arg	Leu	Ser	Pro	Leu	Arg	Pro
			260					265				270			
Glu	Ser	Glu	Val	Leu	Ala	Glu	Glu	Ile	Pro	Ala	Ser	Val	Ser	Ser	Tyr
		275					280					285			
Ala	Gly	Gly	Val	Pro	Pro	Thr	Leu	Asn	Glu	Gly	Leu	Glu	Leu	Leu	Asp
	290					295					300				
Gly	Leu	Asn	Leu	Thr	Ser	Ser	His	Ser	Leu	Leu	Ser	Arg	Ser	Gly	Leu
305					310					315					320
Ser	Gly	Phe	Ser	Leu	Gln	His	Pro	Gly	Val	Thr	Gly	Pro	Leu	His	Thr
				325					330					335	
Tyr	Ser	Ser	Ser	Leu	Phe	Ser	Pro	Ala	Glu	Gly	Pro	Leu	Ser	Ala	Gly
			340					345				350			
Glu	Gly	Cys	Phe	Ser	Ser	Ser	Gln	Ala	Leu	Glu	Ala	Leu	Leu	Thr	Ser
		355					360					365			
Asp	Thr	Pro	Pro	Pro	Pro	Ala	Asp	Val	Leu	Met	Thr	Gln	Val	Asp	Pro
	370					375					380				
Ile	Leu	Ser	Gln	Ala	Pro	Thr	Leu	Leu	Leu	Leu	Gly	Gly	Leu	Pro	Ser
385					390						395				400
Ser	Ser	Lys	Leu	Ala	Thr	Gly	Val	Gly	Leu	Cys	Pro	Lys	Pro	Leu	Glu
				405					410					415	
Ala	Arg	Gly	Pro	Ser	Ser	Leu	Val	Pro	Thr	Leu	Ser	Met	Ile	Ala	Pro
			420					425					430		
Pro	Pro	Val	Met	Ala	Ser	Ala	Pro	Ile	Pro	Lys	Ala	Leu	Gly	Thr	Pro
		435					440					445			
Val	Leu	Thr	Pro	Pro	Thr	Glu	Ala	Ala	Ser	Gln	Asp	Arg	Met	Pro	Gln
	450					455					460				
Asp	Leu	Asp	Leu	Asp	Met	Tyr	Met	Glu	Asn	Leu	Glu	Cys	Asp	Met	Asp
465					470					475					480
Asn	Ile	Ile	Ser	Asp	Leu	Met	Asp	Glu	Gly	Glu	Gly	Leu	Asp	Phe	Asn
				485					490					495	
Phe	Glu	Pro	Asp	Pro											

500

<210> 103  
 <211> 366  
 <212> PRT  
 <213> Homo sapiens

<400> 103

Arg	Gly	Ala	Ile	Arg	Ile	Glu	Lys	Asn	Ala	Asp	Leu	Cys	Tyr	Leu	Ser
1				5					10					15	
Thr	Val	Asp	Trp	Ser	Leu	Ile	Leu	Asp	Ala	Val	Ser	Asn	Asn	Tyr	Ile
			20					25					30		
Val	Gly	Asn	Lys	Pro	Pro	Lys	Glu	Cys	Gly	Asp	Leu	Cys	Pro	Gly	Thr
		35					40					45			
Met	Glu	Glu	Lys	Pro	Met	Cys	Glu	Lys	Thr	Thr	Ile	Asn	Asn	Glu	Tyr
	50					55					60				
Asn	Tyr	Arg	Cys	Trp	Thr	Thr	Asn	Arg	Cys	Gln	Lys	Met	Cys	Pro	Ser
65					70					75					80
Thr	Cys	Gly	Lys	Arg	Ala	Cys	Thr	Glu	Asn	Asn	Glu	Cys	Cys	His	Pro
				85					90					95	
Glu	Cys	Leu	Gly	Ser	Cys	Ser	Ala	Pro	Asp	Asn	Asp	Thr	Ala	Cys	Val
			100					105					110		
Ala	Cys	Arg	His	Tyr	Tyr	Tyr	Ala	Gly	Val	Cys	Val	Pro	Ala	Cys	Pro
		115					120					125			
Pro	Asn	Thr	Tyr	Arg	Phe	Glu	Gly	Trp	Arg	Cys	Val	Asp	Arg	Asp	Phe
	130					135					140				
Cys	Ala	Asn	Ile	Leu	Ser	Ala	Glu	Ser	Ser	Asp	Ser	Glu	Gly	Phe	Val
145					150					155					160
Ile	His	Asp	Gly	Glu	Cys	Met	Gln	Glu	Cys	Pro	Ser	Gly	Phe	Ile	Arg
			165					170						175	
Asn	Gly	Ser	Gln	Ser	Met	Tyr	Cys	Ile	Pro	Cys	Glu	Gly	Pro	Cys	Pro
			180					185					190		
Lys	Val	Cys	Glu	Glu	Glu	Lys	Lys	Thr	Lys	Thr	Ile	Asp	Ser	Val	Thr
		195					200					205			
Ser	Ala	Gln	Met	Leu	Gln	Gly	Cys	Thr	Ile	Phe	Lys	Gly	Asn	Leu	Leu
	210					215					220				
Ile	Asn	Ile	Arg	Arg	Gly	Asn	Asn	Ile	Ala	Ser	Glu	Leu	Glu	Asn	Phe
225					230					235					240
Met	Gly	Leu	Ile	Glu	Val	Val	Thr	Gly	Tyr	Val	Lys	Ile	Arg	His	Ser
				245					250					255	
His	Ala	Leu	Val	Ser	Leu	Ser	Phe	Leu	Lys	Asn	Leu	Arg	Leu	Ile	Leu
			260					265					270		
Gly	Glu	Glu	Gln	Leu	Glu	Gly	Asn	Tyr	Ser	Phe	Tyr	Val	Leu	Asp	Asn
		275					280					285			
Gln	Asn	Leu	Gln	Gln	Leu	Trp	Asp	Trp	Asp	His	Arg	Asn	Leu	Thr	Ile
	290					295					300				
Lys	Ala	Gly	Lys	Met	Tyr	Phe	Ala	Phe	Asn	Pro	Lys	Leu	Cys	Val	Ser
305					310					315					320
Glu	Ile	Tyr	Arg	Met	Glu	Glu	Val	Thr	Gly	Thr	Lys	Gly	Arg	Gln	Ser
				325					330					335	
Lys	Gly	Asp	Ile	Asn	Thr	Arg	Asn	Asn	Gly	Glu	Arg	Ala	Ser	Cys	Glu
			340					345					350		
Ser	Asp	Val	Leu	His	Phe	Thr	Ser	Thr	Thr	Thr	Ser	Lys	Asn		
		355					360					365			

<210> 104

<211> 370  
 <212> PRT  
 <213> Homo sapiens

<400> 104

Arg	Gly	Ser	Val	Arg	Ile	Glu	Lys	Asn	Asn	Glu	Leu	Cys	Tyr	Leu	Ala
1				5					10					15	
Thr	Ile	Asp	Trp	Ser	Arg	Ile	Leu	Asp	Ser	Val	Glu	Asp	Asn	Tyr	Ile
			20					25					30		
Val	Leu	Asn	Lys	Asp	Asp	Asn	Glu	Glu	Cys	Gly	Asp	Ile	Cys	Pro	Gly
		35					40					45			
Thr	Ala	Lys	Gly	Lys	Thr	Asn	Cys	Pro	Ala	Thr	Val	Ile	Asn	Gly	Gln
	50					55					60				
Phe	Val	Glu	Arg	Cys	Trp	Thr	His	Ser	His	Cys	Gln	Lys	Val	Cys	Pro
65					70				75					80	
Thr	Ile	Cys	Lys	Ser	His	Gly	Cys	Thr	Ala	Glu	Gly	Leu	Cys	Cys	His
				85					90					95	
Ser	Glu	Cys	Leu	Gly	Asn	Cys	Ser	Gln	Pro	Asp	Asp	Pro	Thr	Lys	Cys
			100					105					110		
Val	Ala	Cys	Arg	Asn	Phe	Tyr	Leu	Asp	Gly	Arg	Cys	Val	Glu	Thr	Cys
		115					120					125			
Pro	Pro	Pro	Tyr	Tyr	His	Phe	Gln	Asp	Trp	Arg	Cys	Val	Asn	Phe	Ser
	130					135					140				
Phe	Cys	Gln	Asp	Leu	His	Lys	Cys	Lys	Asn	Ser	Arg	Arg	Gln	Gly	
145					150				155					160	
Cys	His	Gln	Tyr	Val	Ile	His	Asn	Asn	Lys	Cys	Ile	Pro	Glu	Cys	Pro
				165					170					175	
Ser	Gly	Tyr	Thr	Met	Asn	Ser	Ser	Asn	Leu	Leu	Cys	Thr	Pro	Cys	Leu
			180					185					190		
Gly	Pro	Cys	Pro	Lys	Val	Cys	His	Leu	Leu	Glu	Gly	Glu	Lys	Thr	Ile
		195					200					205			
Asp	Ser	Val	Thr	Ser	Ala	Gln	Glu	Leu	Arg	Gly	Cys	Thr	Val	Ile	Asn
	210					215					220				
Gly	Ser	Leu	Ile	Ile	Asn	Ile	Arg	Gly	Gly	Asn	Asn	Leu	Ala	Ala	Glu
225					230					235					240
Leu	Glu	Ala	Asn	Leu	Gly	Leu	Ile	Glu	Glu	Ile	Ser	Gly	Tyr	Leu	Lys
			245						250					255	
Ile	Arg	Arg	Ser	Tyr	Ala	Leu	Val	Ser	Leu	Ser	Phe	Phe	Arg	Lys	Leu
			260					265					270		
Arg	Leu	Ile	Arg	Gly	Glu	Thr	Leu	Glu	Ile	Gly	Asn	Tyr	Ser	Phe	Tyr
		275					280					285			
Ala	Leu	Asp	Asn	Gln	Asn	Leu	Arg	Gln	Leu	Trp	Asp	Trp	Ser	Lys	His
	290					295					300				
Asn	Leu	Thr	Ile	Thr	Gln	Gly	Lys	Leu	Phe	Phe	His	Tyr	Asn	Pro	Lys
305					310					315					320
Leu	Cys	Leu	Ser	Glu	Ile	His	Lys	Met	Glu	Glu	Val	Ser	Gly	Thr	Lys
				325					330					335	
Gly	Arg	Gln	Glu	Arg	Asn	Asp	Ile	Ala	Leu	Lys	Thr	Asn	Gly	Asp	Gln
			340					345					350		
Ala	Ser	Cys	Glu	Asn	Glu	Leu	Leu	Lys	Phe	Ser	Tyr	Ile	Arg	Thr	Ser
		355					360						365		
Phe	Asp														
	370														

<210> 105  
 <211> 383  
 <212> PRT

<213> *Drosophila melanogaster*

<400> 105

Arg Gly Gly Val Arg Ile Glu Lys Asn His Lys Leu Cys Tyr Asp Arg  
1 5 10 15  
Thr Ile Asp Trp Leu Glu Ile Leu Ala Glu Asn Glu Ser Gln Leu Val  
20 25 30  
Val Leu Thr Glu Asn Gly Lys Glu Lys Glu Cys Ser Leu Ser Lys Cys  
35 40 45  
Pro Gly Glu Ile Arg Ile Glu Glu Gly His Asp Asn Thr Ala Ile Glu  
50 55 60  
Gly Glu Leu Asn Ala Ser Cys Gln Leu His Asn Asn Arg Arg Leu Cys  
65 70 75 80  
Trp Asn Ser Lys Leu Cys Gln Thr Lys Cys Pro Glu Lys Cys Arg Asn  
85 90 95  
Asn Cys Ile Asp Glu His Thr Cys Cys Ser Gln Asp Cys Leu Gly Gly  
100 105 110  
Cys Val Ile Asp Lys Asn Gly Asn Glu Ser Cys Ile Ser Cys Arg Asn  
115 120 125  
Val Ser Phe Asn Asn Ile Cys Met Asp Ser Cys Pro Lys Gly Tyr Tyr  
130 135 140  
Gln Phe Asp Ser Arg Cys Val Thr Ala Asn Glu Cys Ile Thr Leu Thr  
145 150 155 160  
Lys Phe Glu Thr Asn Ser Val Tyr Ser Gly Ile Pro Tyr Asn Gly Gln  
165 170 175  
Cys Ile Thr His Cys Pro Thr Gly Tyr Gln Lys Ser Glu Asn Lys Arg  
180 185 190  
Met Cys Glu Pro Cys Pro Gly Gly Lys Cys Asp Lys Glu Cys Ser Ser  
195 200 205  
Gly Leu Ile Asp Ser Leu Glu Arg Ala Arg Glu Phe His Gly Cys Thr  
210 215 220  
Ile Ile Thr Gly Thr Glu Pro Leu Thr Ile Ser Ile Lys Arg Glu Ser  
225 230 235 240  
Gly Ala His Val Met Asp Glu Leu Lys Tyr Gly Leu Ala Ala Val His  
245 250 255  
Lys Ile Gln Ser Ser Leu Met Val His Leu Thr Tyr Gly Leu Lys Ser  
260 265 270  
Leu Lys Phe Phe Gln Ser Leu Thr Glu Ile Ser Gly Asp Pro Pro Met  
275 280 285  
Asp Ala Asp Lys Tyr Ala Leu Tyr Val Leu Asp Asn Arg Asp Leu Asp  
290 295 300  
Glu Leu Trp Gly Pro Asn Gln Thr Val Phe Ile Arg Lys Gly Gly Val  
305 310 315 320  
Phe Phe His Phe Asn Pro Lys Leu Cys Val Ser Thr Ile Asn Gln Leu  
325 330 335  
Leu Pro Met Leu Ala Ser Lys Pro Lys Phe Phe Glu Lys Ser Asp Glu  
340 345 350  
Gly Ala Asp Ser Asn Gly Asn Arg Gly Ser Cys Gly Thr Ala Val Leu  
355 360 365  
Asn Val Thr Leu Gln Ser Val Gly Ala Asn Ser Ala Ser Leu Asn  
370 375 380

<210> 106

<211> 381

<212> PRT

<213> *Caenorhabditis elegans*



<400> 106

Asn	Gly	Gly	Val	Arg	Ile	Ile	Asp	Asn	Arg	Lys	Leu	Cys	Tyr	Thr	Lys
1				5					10					15	
Thr	Ile	Asp	Trp	Lys	His	Leu	Ile	Thr	Ser	Ser	Ile	Asn	Asp	Val	Val
		20						25					30		
Val	Asp	Asn	Ala	Ala	Glu	Tyr	Ala	Val	Thr	Glu	Thr	Gly	Leu	Met	Cys
		35					40					45			
Pro	Arg	Gly	Ala	Cys	Glu	Glu	Asp	Lys	Gly	Glu	Ser	Lys	Cys	His	Tyr
	50					55					60				
Leu	Glu	Glu	Lys	Asn	Gln	Glu	Gln	Gly	Val	Glu	Arg	Val	Gln	Ser	Cys
65					70					75					80
Trp	Ser	Asn	Thr	Thr	Cys	Gln	Lys	Ser	Cys	Ala	Tyr	Asp	Arg	Leu	Leu
				85					90					95	
Pro	Thr	Lys	Glu	Ile	Gly	Pro	Gly	Cys	Asp	Ala	Asn	Gly	Asp	Arg	Cys
			100					105					110		
His	Asp	Gln	Cys	Val	Gly	Gly	Cys	Glu	Arg	Val	Asn	Asp	Ala	Thr	Ala
		115						120				125			
Cys	His	Ala	Cys	Lys	Asn	Val	Tyr	His	Lys	Gly	Lys	Cys	Ile	Glu	Lys
	130					135					140				
Cys	Asp	Ala	His	Leu	Tyr	Leu	Leu	Leu	Gln	Arg	Arg	Cys	Val	Thr	Arg
145					150					155					160
Glu	Gln	Cys	Leu	Gln	Leu	Asn	Pro	Val	Leu	Ser	Asn	Lys	Thr	Val	Pro
				165					170					175	
Ile	Lys	Ala	Thr	Ala	Gly	Leu	Cys	Ser	Asp	Lys	Cys	Pro	Asp	Gly	Tyr
			180					185					190		
Gln	Ile	Asn	Pro	Asp	Asp	His	Arg	Glu	Cys	Arg	Lys	Cys	Val	Gly	Lys
		195					200					205			
Cys	Glu	Ile	Val	Cys	Glu	Ile	Asn	His	Val	Ile	Asp	Thr	Phe	Pro	Lys
	210					215					220				
Ala	Gln	Ala	Ile	Arg	Leu	Cys	Asn	Ile	Ile	Asp	Gly	Asn	Leu	Thr	Ile
225					230					235					240
Glu	Ile	Arg	Gly	Lys	Gln	Asp	Ser	Gly	Met	Ala	Ser	Glu	Leu	Lys	Asp
				245					250					255	
Ile	Phe	Ala	Asn	Ile	His	Thr	Ile	Thr	Gly	Tyr	Leu	Leu	Val	Arg	Gln
			260					265					270		
Ser	Ser	Pro	Phe	Ile	Ser	Leu	Asn	Met	Phe	Arg	Asn	Leu	Arg	Arg	Ile
		275					280					285			
Glu	Ala	Lys	Ser	Leu	Phe	Arg	Asn	Leu	Tyr	Ala	Ile	Thr	Val	Phe	Glu
	290					295					300				
Asn	Pro	Asn	Leu	Lys	Lys	Leu	Phe	Asp	Ser	Thr	Thr	Asp	Leu	Thr	Leu
305				310						315					320
Asp	Arg	Gly	Thr	Val	Ser	Ile	Ala	Asn	Asn	Lys	Met	Leu	Cys	Phe	Lys
				325					330					335	
Tyr	Ile	Lys	Gln	Leu	Met	Ser	Lys	Leu	Asn	Ile	Pro	Leu	Asp	Pro	Ile
			340					345					350		
Asp	Gln	Ser	Glu	Gly	Thr	Asn	Gly	Glu	Lys	Ala	Ile	Cys	Glu	Asp	Met
		355					360					365			
Ala	Ile	Asn	Val	Ser	Ile	Thr	Ala	Val	Asn	Ala	Asp	Ser			
	370					375					380				

<210> 107

<211> 370

<212> PRT

<213> Homo sapiens

<400> 107

Ala Leu Pro Val Ala Val Leu Leu Ile Val Gly Gly Leu Val Ile Met



[illegible]

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<210> 109
<211> 384
<212> PRT
<213> Drosophila melanogaster
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<400> 109  
Gly Ile Gly Leu Ala Phe Leu Ile Val Ser Leu Phe Gly Tyr Val Cys  
1 5 10 15  
Tyr Leu His Lys Arg Lys Val Pro Ser Asn Asp Leu His Met Asn Thr  
20 25 30  
Glu Val Asn Pro Phe Tyr Ala Ser Met Gln Tyr Ile Pro Asp Asp Trp

		35					40					45				
Glu	Val	Leu	Arg	Glu	Asn	Ile	Ile	Gln	Leu	Ala	Pro	Leu	Gly	Gln	Gly	
	50					55					60					
Ser	Phe	Gly	Met	Val	Tyr	Glu	Gly	Ile	Leu	Lys	Ser	Phe	Pro	Pro	Asn	
65					70					75					80	
Gly	Val	Asp	Arg	Glu	Cys	Ala	Ile	Lys	Thr	Val	Asn	Glu	Asn	Ala	Thr	
				85					90					95		
Asp	Arg	Glu	Arg	Thr	Asn	Phe	Leu	Ser	Glu	Ala	Ser	Val	Met	Lys	Glu	
				100				105					110			
Phe	Asp	Thr	Tyr	His	Val	Val	Arg	Leu	Leu	Gly	Val	Cys	Ser	Arg	Gly	
		115					120					125				
Gln	Pro	Ala	Leu	Val	Val	Met	Glu	Leu	Met	Lys	Lys	Gly	Asp	Leu	Lys	
	130					135					140					
Ser	Tyr	Leu	Arg	Ala	His	Arg	Pro	Glu	Glu	Arg	Asp	Glu	Ala	Met	Met	
145					150					155					160	
Thr	Tyr	Leu	Asn	Arg	Ile	Gly	Val	Thr	Gly	Asn	Val	Gln	Pro	Pro	Thr	
				165					170					175		
Tyr	Gly	Arg	Ile	Tyr	Gln	Met	Ala	Ile	Glu	Ile	Ala	Asp	Gly	Met	Ala	
			180					185					190			
Tyr	Leu	Ala	Ala	Lys	Lys	Phe	Val	His	Arg	Asp	Leu	Ala	Ala	Arg	Asn	
			195				200					205				
Cys	Met	Val	Ala	Asp	Asp	Leu	Thr	Val	Lys	Ile	Gly	Asp	Phe	Gly	Met	
	210					215					220					
Thr	Arg	Asp	Ile	Tyr	Glu	Thr	Asp	Tyr	Tyr	Arg	Lys	Gly	Thr	Lys	Gly	
225					230					235					240	
Leu	Leu	Pro	Val	Arg	Trp	Met	Pro	Pro	Glu	Ser	Leu	Arg	Asp	Gly	Val	
				245					250					255		
Tyr	Ser	Ser	Ala	Ser	Asp	Val	Phe	Ser	Phe	Gly	Val	Val	Leu	Trp	Glu	
			260					265					270			
Met	Ala	Thr	Leu	Ala	Ala	Gln	Pro	Tyr	Gln	Gly	Leu	Ser	Asn	Glu	Gln	
		275					280					285				
Val	Leu	Arg	Tyr	Val	Ile	Asp	Gly	Gly	Val	Met	Glu	Arg	Pro	Glu	Asn	
	290					295					300					
Cys	Pro	Asp	Phe	Leu	His	Lys	Leu	Met	Gln	Arg	Cys	Trp	His	His	Arg	
305					310					315					320	
Ser	Ser	Ala	Arg	Pro	Ser	Phe	Leu	Asp	Ile	Ile	Ala	Tyr	Leu	Glu	Pro	
				325					330					335		
Gln	Cys	Pro	Asn	Ser	Gln	Phe	Lys	Glu	Val	Ser	Phe	Tyr	His	Ser	Glu	
			340					345					350			
Ala	Gly	Leu	Gln	His	Arg	Glu	Lys	Glu	Arg	Lys	Glu	Arg	Asn	Gln	Leu	
		355					360					365				
Asp	Ala	Phe	Ala	Ala	Val	Pro	Leu	Asp	Gln	Asp	Leu	Gln	Asp	Arg	Glu	
	370					375					380					

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<210> 110
<211> 380
<212> PRT
<213> Caenorhabditis elegans
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<400> 110															
Gly	Met	Leu	Leu	Val	Phe	Leu	Ile	Leu	Met	Ser	Ile	Ala	Gly	Cys	Ile
1				5					10					15	
Ile	Tyr	Tyr	Tyr	Ile	Gln	Val	Arg	Tyr	Gly	Lys	Lys	Val	Lys	Ala	Leu
			20					25					30		
Ser	Asp	Phe	Met	Gln	Leu	Asn	Pro	Glu	Tyr	Cys	Val	Asp	Asn	Lys	Tyr
		35					40					45			
Asn	Ala	Asp	Asp	Trp	Glu	Leu	Arg	Gln	Asp	Asp	Val	Val	Leu	Gly	Gln

50		55		60
Gln Cys Gly Glu Gly Ser Phe Gly Lys Val Tyr Leu Gly Thr Gly Asn				
65		70		75
Asn Val Val Ser Leu Met Gly Asp Arg Phe Gly Pro Cys Ala Ile Lys				
	85		90	95
Ile Asn Val Asp Asp Pro Ala Ser Thr Glu Asn Leu Asn Tyr Leu Met				
	100		105	110
Glu Ala Asn Ile Met Lys Asn Phe Lys Thr Asn Phe Ile Val Gln Leu				
	115		120	125
Tyr Gly Val Ile Ser Thr Val Gln Pro Ala Met Val Val Met Glu Met				
	130		135	140
Met Asp Leu Gly Asn Leu Arg Asp Tyr Leu Arg Ser Lys Arg Glu Asp				
145		150		155
Glu Val Phe Asn Glu Thr Asp Cys Asn Phe Phe Asp Ile Ile Pro Arg				
	165		170	175
Asp Lys Phe His Glu Trp Ala Ala Gln Ile Cys Asp Gly Met Ala Tyr				
	180		185	190
Leu Glu Ser Leu Lys Phe Cys His Arg Asp Leu Ala Ala Arg Asn Cys				
	195		200	205
Met Ile Asn Arg Asp Glu Thr Val Lys Ile Gly Asp Phe Gly Met Ala				
210		215		220
Arg Asp Leu Phe Tyr His Asp Tyr Tyr Lys Pro Ser Gly Lys Arg Met				
225		230		235
Met Pro Val Arg Trp Met Ser Pro Glu Ser Leu Lys Asp Gly Lys Phe				
	245		250	255
Asp Ser Lys Ser Asp Val Trp Ser Phe Gly Val Val Leu Tyr Glu Met				
	260		265	270
Val Thr Leu Gly Ala Gln Pro Tyr Ile Gly Leu Ser Asn Asp Glu Val				
	275		280	285
Leu Asn Tyr Ile Gly Met Ala Arg Lys Val Ile Lys Lys Pro Glu Cys				
290		295		300
Cys Glu Asn Tyr Trp Tyr Lys Val Met Lys Met Cys Trp Arg Tyr Ser				
305		310		315
Pro Arg Asp Arg Pro Thr Phe Leu Gln Leu Val His Leu Leu Ala Ala				
	325		330	335
Glu Ala Ser Pro Glu Phe Arg Asp Leu Ser Phe Val Leu Thr Asp Asn				
	340		345	350
Gln Met Ile Leu Asp Asp Ser Glu Ala Leu Asp Leu Asp Asp Ile Asp				
	355		360	365
Asp Thr Asp Met Asn Asp Gln Val Val Glu Val Ala				
370		375		380

<210> 111  
 <211> 103  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 111  
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 1 5 10 15  
 Lys Leu Lys Asp Lys Lys Asn Asp Leu Gln Asn Leu Ile Asp Val Val  
 20 25 30  
 Leu Ser Lys Gly Thr Lys Tyr Thr Gly Cys Ile Thr Ile Pro Arg Thr  
 35 40 45  
 Leu Asp Gly Arg Leu Gln Val His Gly Arg Lys Gly Phe Pro His Val  
 50 55 60  
 Val Tyr Gly Lys Leu Trp Arg Phe Asn Glu Met Thr Lys Asn Glu Thr

65		70		75		80									
Arg	His	Val	Asp	His	Cys	Lys	His	Ala	Phe	Glu	Met	Lys	Ser	Asp	Met
				85					90					95	
Val	Cys	Val	Asn	Pro	Tyr	His									
			100												

<210> 112  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

<400> 112

Gly	Gly	Glu	Ser	Glu	Thr	Phe	Ala	Lys	Arg	Ala	Ile	Glu	Ser	Leu	Val
1				5					10					15	
Lys	Lys	Leu	Lys	Glu	Lys	Lys	Asp	Glu	Leu	Asp	Ser	Leu	Ile	Thr	Ala
			20					25				30			
Ile	Thr	Thr	Asn	Gly	Ala	His	Pro	Ser	Lys	Cys	Val	Thr	Ile	Gln	Arg
		35					40					45			
Thr	Leu	Asp	Gly	Arg	Leu	Gln	Val	Ala	Gly	Arg	Lys	Gly	Phe	Pro	His
	50					55				60					
Val	Ile	Tyr	Ala	Arg	Leu	Trp	Arg	Trp	Pro	Asp	Leu	His	Lys	Asn	Glu
65					70				75					80	
Leu	Lys	His	Val	Lys	Tyr	Cys	Gln	Tyr	Ala	Phe	Asp	Leu	Lys	Cys	Asp
				85				90						95	
Ser	Val	Cys	Val	Asn	Pro	Tyr	His								
			100												

<210> 113  
 <211> 205  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 113

Ile	Val	Tyr	Tyr	Glu	Lys	Asn	Leu	Gln	Ile	Gly	Glu	Lys	Lys	Cys	Ser
1				5					10					15	
Arg	Gly	Asn	Phe	His	Val	Asp	Gly	Gly	Phe	Ile	Cys	Ser	Glu	Asn	Arg
		20					25					30			
Tyr	Ser	Leu	Gly	Leu	Glu	Pro	Asn	Pro	Ile	Arg	Glu	Pro	Val	Ala	Phe
		35					40				45				
Lys	Val	Arg	Lys	Ala	Ile	Val	Asp	Gly	Ile	Arg	Phe	Ser	Tyr	Lys	Lys
	50					55				60					
Asp	Gly	Ser	Val	Trp	Leu	Gln	Asn	Arg	Met	Lys	Tyr	Pro	Val	Phe	Val
65					70				75					80	
Thr	Ser	Gly	Tyr	Leu	Asp	Glu	Gln	Ser	Gly	Gly	Leu	Lys	Lys	Asp	Lys
				85				90						95	
Val	His	Lys	Val	Tyr	Gly	Cys	Ala	Ser	Ile	Lys	Thr	Phe	Gly	Phe	Asn
			100					105					110		
Val	Ser	Lys	Gln	Ile	Ile	Arg	Asp	Ala	Leu	Leu	Ser	Lys	Gln	Met	Ala
		115					120					125			
Thr	Met	Tyr	Leu	Gln	Gly	Lys	Leu	Thr	Pro	Met	Asn	Tyr	Ile	Tyr	Glu
	130					135					140				
Lys	Lys	Thr	Gln	Glu	Glu	Leu	Arg	Arg	Glu	Ala	Thr	Arg	Thr	Thr	Asp
145					150				155						160
Ser	Leu	Ala	Lys	Tyr	Cys	Cys	Val	Arg	Val	Ser	Phe	Cys	Lys	Gly	Phe
				165				170						175	
Gly	Glu	Ala	Tyr	Pro	Glu	Arg	Pro	Ser	Ile	His	Asp	Cys	Pro	Val	Trp

[illegible][illegible]